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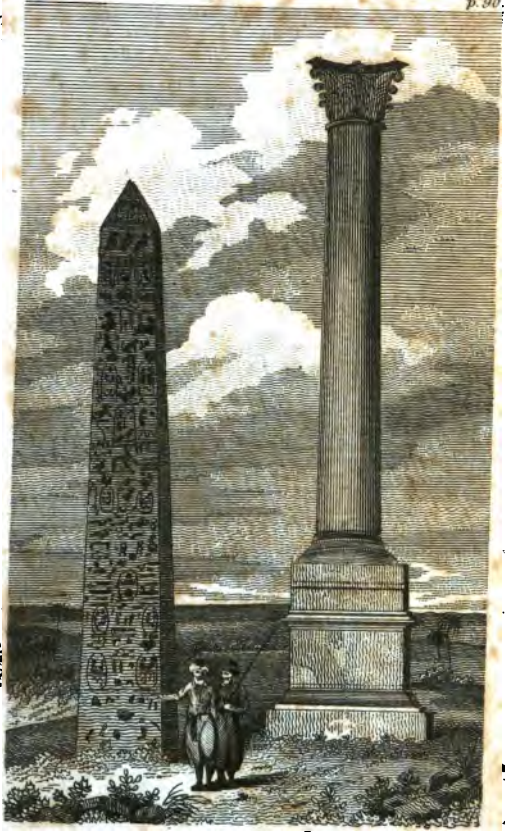

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THE

# WONDERS

OF

# NATURE AND ART;

OR,

## A CONCISE ACCOUNT

OF

## WHATEVER IS MOST CURIOUS AND REMARKABLE

IN

## THE WORLD;

Whether relating to its Animal, Vegetable, and Mineral Productions, or to the Manufactures, Buildings, and Inventions of its Inhabitants,

*Compiled from Historical and Geographical Works of established Celebrity, and illustrated with the Discoveries of modern Travellers.*

*By the Rev. THOMAS SMITH,*

Author of the UNIVERSAL ATLAS, SACRED MIRROR, &c. &c.

"Review these numerous scenes, at once survey
Nature's extended face, then Sceptics say,
In this wide field of wonders, can you find
No art discover'd, and no end design'd?"

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# WONDERS

OF

# NATURE AND ART.

## PART III.

## *AFRICA.*

### CHAP. I.

#### OF EGYPT.

*Situation, Climate, Soil, &c.*

THIS extensive and justly celebrated country is situated between thirty and thirty-six degrees of east longitude, and between twenty-one and thirty-one degrees of north latitude; being bounded by the Mediterranean on the north; by the Red Sea and the Isthmus of Suez on the east; by Abyssinia, or Ethiopia, on the south; and by the deserts of Barca and Nubia on the west. It is about six hundred miles in length from north to south; and extends from one hundred to two hundred and fifty in breadth from east to west. It is properly divided into two parts, called the Upper and Lower Egypt, and is subdivided into eighty provinces.

Upper Egypt, according to M. Savary, is only a long narrow valley, beginning at Sienna and terminating at Cairo. It is bounded by two chains of mountains, which run from north to south, and take their rise from the last cataract of the Nile. On reaching the latitude of Cairo, they separate to the right and left; one taking the direction of Mount Colzorem, and the other terminating in some sand banks near Alexandria. Beyond these mountains are deserts, bounded by the Red Sea on the east, and by other parts of Africa on the west, having in the middle a long plain, which, even where widest, is not more than nine leagues over.

Lower Egypt is said to comprehend all the country between Cairo, the Mediterranean, the Isthmus of Suez, and Libya. "This immense plain," says M. Savary, "presents on the borders of its parching sands, a stripe of lands cultivated along the canals of the Nile, and in the middle a triangular island to which the Greeks gave the name of Delta, from its resemblance to the fourth letter of their alphabet. This great extent of country, from Barca to Gaza, is capable of being overflowed by the Nile, and is therefore fertilized to a high degree, though seemingly devoted to eternal sterility on account of the want of rain, and the heat of the climate. According to the concurring testimonies of Mr. Bruce and M. Volney, the coast of Egypt is so extremely low, that it cannot be discovered at sea till the mariners come within a few leagues of it. In ancient times, the sailors pretended to know when they approached this country, by a kind of black mud brought up by their sounding lines from the bottom of the sea; but this notion

has been proved to be erroneous by Mr. Bruce, who found the mud to arise while the vessel was opposite to the deserts of Barca.

The air and climate of Egypt are extremely hot, not only from the height of the sun, which in summer approaches to the zenith, but also from the want of rain, and from the vicinity of those burning and sandy deserts which lie to the south. In the months of July and August, Reaumur's thermometer stands, even in the most temperate apartments, at twenty-four degrees above the freezing point, and in the southern provinces it is said to rise still higher. Hence, says M. Volney, only two seasons should be distinguished in Egypt, the cool and the hot, or spring and summer. The latter continues for the greatest part of the year, viz. from March to November, or even longer; for by the end of February, the sun is intolerable to an European at nine o'clock in the morning. During the whole of this season the air seems to be inflamed, the sky sparkles, and every one is thrown into a profuse perspiration, even without the least exercise. This heat, however, is considerably mitigated by the inundation of the Nile, the fall of the nocturnal dews, and the subsequent evaporation; so that the natives frequently complain of the cold in winter. The dew does not fall regularly throughout the summer; the acidity of the country not affording a sufficient quantity of vapour for this purpose. It is first observed about the 24th of June, when the river has begun to swell, and consequently a great quantity of water is raised from it, by the heat of the sun, which, being condensed by the night air, falls down in copious dews. It might be imagined that as, for

three months in the year, Egypt is in a wet and marshy situation, the excessive evaporation of the stagnating waters would prove very unhealthy. This, however, is by no means the case; for the great dryness of the air makes it absorb all kinds of vapour with the utmost avidity, and the wind carries them off either to the north or south, without communicating any of their pernicious effects.

By reason of this dryness of the air, Egypt is exempted from the phenomena of rain, hail, snow, thunder and lightning. Earthquakes are, also, seldom felt in this country, though sometimes they have been very violent and destructive. In the Delta, it never rains in summer, and very seldom at any other time. In 1761, however, such a quantity of rain unexpectedly fell, that a great number of mud houses were completely destroyed by being soaked with the water. In the Upper Egypt, rain is still less frequent; but the people, sensible of the advantages which accrue from it, always rejoice to see it fall. This deficiency of rain is supplied by the inundation of the Nile, and by the dews, the latter of which are more or less copious according to the direction of the wind.

The soil of Egypt is the most fruitful of the whole earth, the easiest cultivated, and the most certain in its crops. This fertility has been ascribed by some travellers to the salt with which it abounds; for so great is the propensity of the Egyptian soil to produce salt, that even when the gardens are overflowed for the sake of watering them, the surface of the ground, after the absorption of the water, appears glazed over with salt. M. Volney is of opinion, that the fertile

mould of Egypt, which is of a black colour, differs essentially from that of the other parts, and is derived from the interior of Ethiopia along with the waters of the Nile; but there is no reason to suppose this kind of earth of foreign origin; it being always the result of vegetation and cultivation. The cause of decrease in the modern produce of Egypt compared with the ancient, is thus assigned by M. Savary. "The canals," says he, speaking of the Delta, "which used to convey fertility with their waters, are now filled up. The earth no longer watered, but exposed to the burning ardour of the sun, is converted into a barren sand. In those places where formerly were seen rich fields and flourishing towns, on the Pelusiac, the Tarictic, and the Mendesian branches, which all strike out from the canal of Damietta, nothing is to be found at present but a few miserable hamlets surrounded with deserts. These once navigable canals are now no more than a vain resemblance of what they were; for they have no communication with the lake Menzall but what is occasioned by the swelling of the Nile, and during the remainder of the year, they are perfectly dry. By deepening them, and by removing the mud deposited by the river since the Turks have been in possession of Egypt, the country they pass through would be again fertilized, and the Delta would recover a third of its ancient greatness."

The periodical return of winds from a certain quarter may be justly reckoned among the most curious phenomena of Egypt.—When the sun approaches the tropic of Cancer, they shift from east to north; and in June, they invariably blow from the north or north-west. They continue

northerly during the whole of July, varying only sometimes toward the east and west. In August and September, they blow directly from the north and are but of a moderate strength, though somewhat weaker in the night than in the day. Toward the end of September, they return to the east, though they do not absolutely fix on that point, but blow more regularly from it than any other. As the sun approaches the southern tropic, they become more variable and tempestuous, blowing most commonly from the north and north-east, which they continue to do throughout December, January, and February; and during that season, the vapours raised from the Mediterranean condense into mist, or sometimes into rain. Toward the end of February and in March, they more frequently blow from the south than from any other quarter. During part of March and in April, they blow from the south-east and south-west, and sometimes from the east, the latter becoming most prevalent about the end of the month, and continuing during the whole of May.

It is to the long continuance of the north winds, (formerly called the Etesian winds) that Egypt is supposed to owe its extreme dryness as well as part of the inundation by which it is annually fertilized—From April to July, there appears to be two strong currents in the atmosphere, the under one blowing from the north, and the upper from the south. By the former, the vapours are raised from the Mediterranean and the southern parts of Europe, whence they carried over Abyssinia, dissolving there in immense torrents of rain; while by the latter the superfluous vapours, or those raised from the soil of Abyssinia

itself, are carried in a northerly direction toward the sources of the Euphrates. Here the clouds coming from the south, dissolve in like manner into rain, and produce an inundation of the Euphrates similar to that of the Nile, and immediately succeeding it. Mr. Bruce had an opportunity of ascertaining this fact in the summer of 1768; for at that time, while on a voyage from Sidon to Alexandria, he observed great numbers of thin white clouds moving rapidly from the south, and in direct opposition to the Etesian winds.

Besides the ordinary winds abovementioned, Egypt is infested with the pestilential blasts common to all warm countries which have deserts in their immediate vicinity. The Egyptians call them "winds of fifty days," because they commonly prevail during the fifty days preceding and following the equinox; though, if they were to blow constantly for only half that time an universal destruction would be the consequence. They always blow from the south, and are indisputably owing to the motion of the atmosphere over such vast tracts of hot sand, where it cannot be supplied with a sufficient quantity of moisture. When they begin to blow, the sky loses its usual serenity, and assumes a dark and alarming aspect, the sun laying aside his usual splendor and becoming of a violet colour. This terrific appearance seems not to be occasioned by any real haze or cloud in the atmosphere, but solely to the vast quantity of sand carried along by these winds, and which is so excessively subtile that it penetrates every where.

The extreme dryness of these winds is such,

that water sprinkled on a floor evaporates in a few minutes; all the plants are withered and stripped of their leaves; and a fever is instantaneously produced in the human species by the suppression of perspiration. The danger is greatest when the wind blows in squalls, and to travellers who happen to be exposed to its fury without any shelter. The best method in this case, is to stop the mouth and nostrils with a handkerchief. Camels, by a natural instinct, bury their noses in the sand, and keep them there till the squall is over.

A blast of this kind once overtook Mr. Bruce in the desert of Nubia; and the pillars of moving sand, which are commonly raised by such winds, were observed on this occasion in all their terrific majesty Sometimes they appeared to move slowly; but at other times, with such incredible swiftness that they could not possibly have been eluded by the fleetest horse. Frequently the tops, when arrived at an immense height, suddenly separated from the bodies, and dispersed themselves in the air; and sometimes the whole column broke off near the middle, as if it had received a cannon shot: and their size was so enormous, that, at the distance of about three miles, they appeared ten feet in diameter. Next day they seemed of a smaller size, but more numerous, and sometimes approached within two miles of the company. The sun was now obscured by them, and the transmission of his rays gave them a dreadful appearance, resembling pillars of fire. This was said to be a certain sign of the approaching *Simoom* or hot wind, and the guide directed, that, when it came, the travellers should fall upon their faces, and keep their

mouths on the sand, to avoid drawing in the pernicious blast with their breath. On his calling out that the Simoom was coming, Mr Bruce turned for a moment to the quarter from whence it came, and perceived it like a fog of a purple colour, seemingly about twenty yards in breadth, and about twelve feet high from the ground. It moved with such rapidity that, before he could turn about and prostrate himself, he felt the vehement heat of its current upon his face, and even after it had passed over, the air which followed was so extremely hot as to threaten instant suffocation.

The same phenomenon occurred twice more on our traveller's journey through the desert. The second time it seemed to have a shade of blue mingled with the purple, and its edges were less perfectly defined; resembling a thin smoke, and having about a yard in the middle tinged with blue and purple. The third time, it was preceded by an appearance of sandy pillars more magnificent than any that had been yet observed; the sun shining through them in such a manner as to give those which were nearest a resemblance of being spangled with stars of gold. The Simoom which followed had the same blue and purple appearance as before, and was succeeded by a most suffocating wind which continued for upwards of two hours.

The danger of travelling in these sandy deserts is finely and energetically described in the tragedy of Cato:——

"So where our wide Numidian wastes extend,
Sudden the impetuous hurricanes descend,
Wheel through the air, in circling eddies play,
Tear up the sands, and sweep whole plains away,
The helpless traveller, with wild surprise,
Sees the dry desert all around him rise,
And, smother'd in the dusty whirlwind, dies."

Mr. Bruce remarked, that these destructive winds always came from the south-east while the sandy pillars which prognosticated their approach, seemed to keep to the westward, and to occupy the vast circular space enclosed by the Nile to the west of their route, going round by Chaigic toward Dongola. The heaps of sand left by them when they fell, or raised by the whirlwinds which carried them up, were about twelve feet high, exactly conical, tapering to a fine point, and their bases well proportioned.

## INUNDATION OF THE NILE, CATARACTS, LAKES, &c.

The river Nile has always been reckoned one of the greatest wonders of Egypt, and it is chiefly to this that the country owes its abundant fertility; for, as it seldom rains in the inland parts, and the soil is naturally dry and sandy, if the lands were not annually watered by the overflowing of this river, Egypt, instead of the most fruitful, would be one of the most barren regions in the world.

The sources or springs of this famous river were absolutely unknown to the ancients; and the discovery of them having been repeatedly attempted in vain, was deemed so honourable an enterprize, that Lucan makes Cæsar speak to this effect:

"Long has my curious soul, from early youth,
Toil'd in the noble search of sacred truth;
Yet still no views have urged my ardour more,
Than Nile's remotest fountain to explore;
Then say what source the famous stream supplies,
And bids it at revolving periods rise;

Show me that head from whence, since time begun,
The long succession of his waves has run:
This let me know, and all my toils shall cease,
The sword be sheathed, and earth be blest with* peace."

The first who, in modern ages, attempted this discovery, was a monk, sent into Abyssinia in the year 522, by Nonnosus, ambassador from the emperor Justin. This monk is called *Cosmas the hermit*, and likewise *Indopleustes*, from his supposed travels into India. He proceeded as far as the city of Axum, but did not visit that part of the country where the head of the Nile lies; nor is it supposed that it would have been practicable for him to do so. The discovery is said to have been made at last by Peter Paez the missionary: but the truth of this account is denied by Mr. Bruce for the following reasons. 1st. "No relation of this kind," says he, "was to be found in three copies of Paez's history to which I had access in Italy. One of these copies I saw at Milan, and, by the interest of friends, had an opportunity of perusing it at leisure. The other two were at Rome and Bologna: I ran through them rapidly, attending only to the place where the description ought to have been; but, having copied the first and last page of the Milan manuscript, I found, on comparison, that all the three were exactly alike, and none of them contained one syllable of the discovery of the source. 2d. Alphonso Mendaz came into Abyssinia about a year after Paez's death. New and desirable as that discovery must have been to himself, to the Pope, the king of Spain, and all his great patrons in Portugal and Italy, yet he never mentions this journey of Peter Paez, though it, probably, must

* Letter prefixed to Moore's Travels.

have been conveyed to Rome and Portugal after his inspection, and under his authority. 3rd. Balthazar Tellez, a learned Jesuit, has written two volumes in folio, with great candor and impartiality, considering the spirit of those times; and he declares his work to be compiled from that of Alphonso Mendez, the patriarch, from the two volumes of Peter Paez, as well as from the regular reports made by the individuals of the company in some places, and by the provincial letters in others; to all of which he had free access, as also to the annual reports of Peter Paez from 1598 to 1622; yet Tellez makes no mention of such a discovery, though he particularly notices the merit of each missionary during the reign of Facilidas, which occupies more than half the two volumes."

Mr. Bruce informs us, that the sources of the Nile are situated in the country of the Agows, in Abyssinia, and that the longitude of the principal fountain is thirty six degrees, fifty five minutes, thirty seconds east from Greenwich.—The place through which is the passage to the territory of the Agows, is called Abala; a valley, generally about half a mile, and never exceeding one mile, in breadth. The mountains which surround it are at first of an inconsiderable height, and covered to their very summits with trees and herbage, but as they proceed to the southward they become more rugged. Those to the west join a mountain called *Asortnaska*, where they turn to the south, and enclose the territory of Sacala, which lies at the foot of them; and further to the westward is the small village of Geesh, where the fountains of the Nile are situated.

Having passed several considerable streams all of which empty themselves into the Nile, Mr.

Bruce found himself obliged to ascend a very steep and rugged mountain, where no path appeared but a very narrow one made by the sheep, and rendered almost impassable by thorny plants, and a number of large stones which seemed to have remained there ever since the creation. At length, however, he reached the top, and had a sight of the Nile immediately below him; but so diminished in size, that it now appeared only a brook scarce sufficient to turn a mill. The village of Geesh is not within sight of the fountains of this river, though not more than six hundred yards distant from them. The country about that place terminates in a cliff of about three hundred yards high, which reaches down to the plain of Assoa, continuing in the same degree of elevation till it meets the Nile again about seventeen miles to the southward. In the middle of this cliff is a large cave, running straight northward, with several bye-paths, forming a natural labyrinth, which seems capable of containing the inhabitants of the whole village, together with their cattle. Into this cave Mr. Bruce advanced about a hundred yards; but did not chuse to go further, as the candle he carried with him seemed ready to go out, and the people assured him, that there was nothing remarkable to be seen at the end.

From the edge of the cliff of Geesh, above the village, the ground slopes on the northward with a regular descent to a triangular marsh upwards of eighty-six yards broad; and about the middle of this marsh rises a circular hillock, about twelve feet in diameter, and surrounded by a shallow trench which collects the water, and sends it off to the eastward. This is firmly built of sod, and kept in repair by the Agows, who worship the river, and

perform their religious ceremonies upon this, as an altar. In the midst of it is a circular hole, which is always kept clear of grass and aquatic plants, and the water in it is perfectly pure and limpid, but without any ebullition or visible motion on its surface. The mouth is rather less than three feet diameter, and at the period of our traveller's first visit, (Nov. 5, 1770) the water stood about two inches from the brim, nor did it either increase or diminish during all the time of his residence in the neighbourhood. On putting down the shaft of a lance, he found a feeble resistance, at the depth of six feet four inches, as if from grass and rushes; and about six inches deeper, he found his lance had entered into soft earth, but met with no obstruction from stones or gravel; and the same was confirmed by using a heavy plummet with a line besmeared with soap.—This is the first fountain of the Nile.

The second fountain is situated about ten feet distant from the former, and is only eleven inches in diameter, but eight feet three inches deep.—The third is about twenty feet from the first; the mouth being rather more than two feet in diameter, and five feet eight inches in depth. These fountains are used as altars, and from the foot of each issues a running rill, which uniting with the water of the first trench, goes off at the east side in a stream that would fill a pipe of about two inches diameter. The water of these fountains is extremely light and intensely cold, though exposed to the scorching heat of the sun without any shelter. The elevation of the ground must be very great, as the barometer stood only at twenty two inches, "neither," says Mr. Bruce, "did it vary from that height any of the days I staid at Geesh, and thence I inferr-

ed, that at the sources of the Nile, I was more than two miles above the level of the sea;—a prodigious height to enjoy a sky perpetually clear, as also a hot sun, never overcast with clouds from rising to setting."

The Nile, thus formed by the union of streams from these three fountains, runs eastward through the marsh for thirty yards, with a very little increase of water, but perfectly visible, till it is met by the grassy bank of land declining from Sacala. This turns it round gradually to the north east and then due north; and in the two miles it flows in that direction, the river receives many small contributions from springs that rise in the banks on each side of it, so that about this distance from the fountains, it becomes a stream capable of turning a common mill.

From this spot the Nile turns to the westward, and after running over loose stones occasionally in that direction about four miles farther, a fall commences of about six feet in height after which it quits the mountainous place of its nativity, and issues into the plains of Goutto. Here it flows so gently that its motions can scarcely be perceived, but, at the same time, it makes so many sharp unnatural windings, that it differs from any other river our author ever saw; making about twenty sharp angular peninsulas in the course of five miles through a marshy plain of clay, quite destitute of trees and very unpleasant. After passing this plain, it turns due north; and receives the tribute of several small streams which descend from the mountains of Aformasha. It now begins to run rapidly, and again receives a number of beautiful rivulets which have their rise in the heights of Litchambara. Here it becomes a considerable

from the court that leads to the house is a descent to the Nile, by steps, on which the common people believe that Moses was found after he had been exposed on the banks of the river.

As the river cannot of itself overflow the lands every where in the necessary proportion, the people have cut, with incredible labour, a vast number of canals and trenches from one end of Egypt to the other, so that almost every town and village has its canal, which is opened at the proper time, and conveys the water of the Nile to distant places. It is from these canals, where the banks of the Nile are high, that the lands are overflowed; but it is otherwise where they are low, particularly in the Delta, which is that part of Egypt that lies between the two mouths of the river *. Canals are carried along the higher grounds, that the water may have a fall from them to the lower parts; and from the great canals it is drawn out into small channels, and conveyed all over the country. It is likewise observable, that, as they have dikes or banks to keep the water out of the canals till the river be risen to a proper height to let it in, so in some of them they have contrivances to keep it in after the Nile is fallen, and also preserve it in certain lakes or ponds, from whence they can let it out upon their lands at pleasure.

* A little below Cairo the Nile divides itself into two large branches, which empty themselves into the Mediterranean at a great distance from each other, one near Rosetta, the other near Damiata: and thus the country between them is shaped something like the Greek letter Delta, from whence its name: But as to the seven mouths of the Nile, much spoken of by the ancients, they are not to be found at present, time having made a great alteration in the face of the country.

The reader, however, is to understand, that some parts of the country lie too high to be watered by means of the canals, and several gardens and plantations require more refreshment than what they receive from the annual inundation; and on this account they are obliged to raise water from the river, which is lodged in cisterns or reservoirs contrived for that purpose. This is generally done by the Persian wheel, a machine turned by oxen, which carries a rope hung with several vessels, that fill as it goes round, and empty themselves at top into the reservoir. They have another contrivance where the bank of the river is high; in which case they make a bason on the side of it, fixing near it an upright pole, and across the top of that another with an axle, at one end whereof hangs a great stone, and at the other a leathern bucket, which, being drawn down into the water by two men, is raised up again by the weight of the stone, the men directing it, and emptying it into the bason. The former of these machines is chiefly used in the lower parts of Egypt, the latter in the higher; for, as we advance up the river, the difficulty of raising the water increases.

We may judge how much the fertility of Egypt is owing to the inundation of the Nile, when we consider that it leaves behind it a stratum of mud or slime, which, without any other manure, renews all the strength of the soil that the preceding harvest had impaired; nay, it is frequently found necessary to temper it with a little sand, to abate its excessive richness. And here it is worth observing, that the surface of the ground must have been considerably raised, in a long course of years, by these repeated accessions of mud and slime, so that formerly a less rising of the Nile was sufficient to

overflow the country than at present. As to the quantity of mud thus annually left by the river, it is a point not easy to determine, but Dr. Shaw supposes that the surface of the land of Egypt is thereby raised somewhat more than a foot in a hundred years; according to which computation, the perpendicular accession of soil from the deluge to the present time must have been about forty-two feet. And hence the doctor imagines, that in process of time the whole country may be reduced to the greatest barrenness, by being raised so high that the river will not be able to overflow its banks. But Dr. Pococke is of another opinion, as supposing that a great quantity of soil is annually carried off in the productions of the earth, (which in Egypt is not supplied by manuring) and that the bed of the Nile may be raised by the subsiding of the heavier sandy particles; for which reason he thinks it improbable that the land will ever rise to such a height, as to be deprived of the usual inundations. He observes, however, if that should ever be the case in the Lower Egypt, the inhabitants would only be in the condition of those of Upper Egypt, who are obliged to raise the water by art and labour.

With respect to the distribution of the waters of the Nile by means of canals, &c. we shall only add, that there is a great canal called Khalis, which runs from the river quite through the city of Cairo, and several miles beyond it. Near the mouth of this canal there is a mound or mole, which is every year broken down with great solemnity and rejoicing, when the Nile rises to the height of sixteen peeks; and thereby the water is conveyed into the city, and from thence into the gardens and the adjacent country. The bashaw himself accompanied by all his great officers, and attended by a

vast multitude of people, assists at the ceremony of cutting this bank; and on this occasion the trumpets and other music, the repeated shouts of the people, the firing of guns, &c. make an agreeable confusion. In short, bonfires, illuminations, fireworks, several sorts of games and exercises, and whatever can express an universal joy, are continued for three days and nights successively. M. Thevenot, who was twice present at this ceremony tells us, that, among other diverting sights exhibited on that occasion, he saw two swimmers, whose performances were very surprising. One of these, with his hands tied behind him, and his feet bound with a chain weighing ten pounds, stood upright in the water, and in that manner went from the opening of the canal quite through Cairo, which is three miles and upwards. The other fellow swam in chains from one end of the canal to the other, with a pipe in his mouth, and a dish of coffee in his hand, without spilling it; and both these swimmers were handsomely rewarded.

Before we leave the Nile it is proper to take notice of its famous cataracts, which are usually reckoned seven in number, where the river pours itself down high precipices, with such a prodigious noise, that it may be heard at the distance of several leagues. De l'Isle represents one of them as falling from a height of two hundred feet, with a noise exceeding that of the loudest thunder; and it is said the water breaking with the fall, raises such thick mists, that at a distance they appear like clouds. It is also reported that the water in its fall forms a kind of arch, under which one may walk without being wetted; and the neighbouring people seem formerly to have made this a diversion, there being several niches and seats cut in the rock,

and likewise some grottoes, which are now become inaccessible. Seneca relates a practice of the inhabitants near the cataracts of the Nile, which appears quite incredible, viz. That two of them used to get into a small boat, the one to guide it, the other to throw out the water, and, directing the little vessel with their hands, they dexterously steered through the narrow channels without touching the rocks, till at last they were hurried down the precipice by the falling river. The frighted spectators then supposed them inevitably swallowed up and lost, but presently saw them appear again upon the water at a great distance.—Some modern travellers seem to confirm this account; but Dr. Pococke, who saw several of the cataracts, takes no notice of any such practice; nor does he represent them as such frightful falls as they are generally supposed to be. The doctor tells us of some rocks that lie across the river in three different places, dividing the stream, and causing several falls of water; but he makes the greatest of them not above seven or eight feet, and others about four or five. He acknowledges however, that the natives talked of other cataracts besides those he saw, and even reckoned seven of them, which seems to agree with the accounts of the ancients: But, as to the Catadupa; those high cataracts whose noise made the neighbouring inhabitants deaf, he looks upon the whole as fabulous.

We shall finish our account of the Nile by observing, that the waters of it run through a canal during six months into the lake of Mœris, and during the other six months flow back from the lake into the Nile. This lake is said to have been dug by a king of Egypt of the same name, in order to correct the irregularities of the Nile, by receiving

the superfluous waters when the river rose too high, and by supplying the lands with water when the river failed, which was let out of the lake into the adjacent country by a great number of canals and ditches. Many of these canals are still subsisting, which are equally serviceable to the present inhabitants of Egypt as they were to the ancient, and are attributed, like most other works of public benefit, to the patriarch Joseph, whose name they have given to the great canal whereby the lake has a communication with the Nile.

According to the accounts of Herodotus and Diodorus, this lake was no less than three thousand six hundred stadia, or four hundred and fifty miles in circumference, whereas Pomponius Mela makes it no more than twenty miles; but the critics suppose this to be a mistake in Mela's copy, and have accordingly corrected it by those historians. The truth seems to lie between these two extremes, for travellers of veracity assure us, that the lake of Mœris is at this day between forty and fifty miles in length, and ten or twelve in breadth; though the extent of it varies as the Nile sinks or rises. Its banks are of a blackish soil, between which and the water the ground is slaty, and part of it covered with a deep slimy mud, with a thin cake of salt upon its surface. The water has a muddy taste, is almost as salt as the sea, and consequently very disagreeable; but it is fresher towards the part where the canal enters from the river.

To form this prodigious lake, if it was made by art, a vast quantity of earth must have been dug up, which naturally led Herodotus to enquire what became of it, and the Egyptians told him it was thrown into the Nile, and dispersed by the current

of that river. This account, however, seems far from being satisfactory; and, as the inhabitants of the country could give no better answer to the historian's question, it is reasonable to suppose this spacious lake was rather a work of nature than of art, though perhaps king Mœris might enlarge it, by opening or cleansing its communication with the Nile, erecting flood-gates, and even sinking some part of it deeper than it was originally; and this might give rise to the tradition that he caused the whole cavity to be dug, and formed the lake which retained his name.

The two lakes of Natron, situated to the west of the Delta, are very interesting objects. Their bed is a sort of natural trench, three or four leagues long, by a quarter of a league wide; and the bottom is solid and stony. It is dry for nine months in the year; but in winter, there oozes from the earth a water of a reddish violet colour, which fills the lake to the height of five or six feet; the return of the great heats causing this to evaporate, there remains a bed of salt, two feet thick and very hard, which is broken with bars of iron; and it is said, that nearly thirty thousand quintals are produced from these lakes every year.

## MINERALS, MOUNTAINS, &c.

Most modern travellers have taken notice of the inconveniences that attend travelling in Egypt, and which render it extremely difficult to speak with accuracy respecting the mineral productions of that celebrated country. These arise princi-

pally from the barbarity and superstition of the natives, who imagine all Europeans to be magicians and sorcerers, who come purposely to discover those treasures which the genii have concealed under their ruins. So deeply rooted is this absurd opinion, that no person dares walk alone in the fields, nor can he find any one willing to accompany him; so that he is, in a manner, confined to the banks of the river, and it is only by comparing the accounts of various travellers that any satisfactory knowledge can be acquired.

From comparing his own observations with those of other travellers, M. Volney concludes, that the basis of all Egypt from Asouan to the Mediterranean is a continued bed of calcareous stone of a whitish hue and soft substance, containing the same kind of shells that are met with in the adjacent seas.—According to Mr. Bruce, the porphyry mountains and quarries begin at Hamra, in the latitude of nearly twenty-four degrees, and continue along the coast of the Red Sea to about twenty-two degrees thirty minutes; when they are succeeded by the marble mountains, these again by others of alabaster, and these last by basaltic mountains. Some of these mountains appeared to be composed entirely of red, and others of green marble, and by their different colours afforded an extraordinary spectacle. In the vicinity of Cosseir, our author discovered the quarries whence the ancients obtained those prodigious quantities of marble with which they constructed so many wonderful works. The first place where the marks of their operations were plainly discernible, was a very high mountain, where the stone was so hard as to resist the stroke of a hammer; and the evident termination of some chan-

nels at this spot, served to prove that water was anciently used in cutting these hard stones.

In four days, during which Mr. Bruce travelled among these mountains, he passed more granite, porphyry, marble, and jasper than might have sufficed to build Rome, Athens, Corinth, Syracuse, Memphis, Alexandria, and half a dozen such cities. It also appeared, that the passages between the mountains, and what our author calls *defiles*, were not natural but artificial openings; where even whole mountains had been cut out, in order to preserve a gradual slope toward the river.

Concerning the mountains in general, our traveller observes, that the porphyry is very beautiful to the eye, and is discovered by a fine purple sand without any gloss. An unvariegated marble of a green colour is generally found in the same mountain; and where the two meet, the marble becomes soft for a few inches, but the porphyry retains its hardness. The granite has a dirty brown appearance, being covered with sand; but on removing this, it appears of a grey colour, with a reddish cast all over it, and diversified with black spots. The red marble is next to the granite, though not met with in the same mountain: there is, also, a red kind with white veins, and a great quantity of the common green serpentine. Some samples of that beautiful marble called *Isabella*, were likewise observed: one of them of that yellowish cast called quaker colour, and the other of the bluish kind, named dove-colour. The most valuable kind, however, is that called *verde antico*, which is found next to the Nile in the mountains of serpentine marble. It is covered by a bluish stone, somewhat lighter than slate, more beautiful than most kinds

of marble, and, when polished, having the appearance of a volcanic lava.

Some travellers have spoken of an emerald mine, in this country; but, from the researches of Mr. Bruce, it does not appear to have any existence. In the Red Sea, indeed, at a small distance from the south-west coast, there is an island called the mountain of Emeralds; but it seems that none of those precious stones have ever been found there in modern times. Here, as well as on the continent, there were many pieces of a green pellucid substance; but veined, and much softer than rock crystal, though somewhat harder than glass. A few yards up the mountain, Mr. Bruce found three pits, which are supposed to have been the mines whence the ancients obtained their emeralds; but though many pieces of the green substance above-mentioned, were met with about these pits, no signs of the true emerald could be perceived.

In the mountains of Cosseir, as well as in some parts of the deserts of Nubia, our author found some rocks which exactly resembled petrified wood. On the road to Suez are found great numbers of Egyptian flints and pebbles; though the bottom is a hard, calcareous, and sonorous stone. Here also, M. Volney tells us, that the stones resembling petrified wood are to be met with. These, he says, are in the form of small logs, cut slanting at the ends, and might easily be taken for petrifactions, though he was well convinced that they were real minerals.

## VEGETABLES.

IT is not to be supposed, that such a country as Egypt, which is very hot and annually overflowed, should produce any great variety of plants; and it may be presumed that very few, except those of the aquatic kind, were originally produced in Egypt, but have been transplanted thither from other countries. The celebrated plant called papyrus, or biblus, which formerly grew plentifully on the banks of the Nile, and is perhaps a native of Egypt *, is now rarely to be met with, the poorer sort of people having almost destroyed it, by digging up the roots for fuel. This plant was made use of by the ancients to write upon, and thence our paper had its name. It has a large stem, from whence some say they took the pith, which they worked into a white paste, or glue, and of that made a kind of paper, almost in the same manner as we do with our linen rags; but others say they used the inner rind for that purpose. According to Pliny, the root of this plant is as thick as a man's arm, and ten cubits long, from whence arise a great number of triangular stalks, at the extremities whereof its flowers are ranged in clusters. Its root is woody and knotty, its leaves long like those of the bulrush, and its taste and smell re-

* Though the papyrus grew chiefly in Egypt, it was also found in India; and Guilandinus assures us he saw it in Chaldea, at the confluence of the Tigris and Euphrates, large fens, wherein with his own hands he plucked a papyrus differing in nothing from that of the Nile. Strabo likewise speaks of a sort growing in Italy; but we do not find it was ever used for making paper.

semble those of the cypress, of which some reckon it a species.

The manner of making the Egyptian paper was as follows: they began with lopping off the root and head of the papyrus, as of no use in this manufacture; the remaining stem they slit lengthways into two equal parts, and from each of these they stripped the thin scaly coats or pellicles, whereof it was composed, with the point of a penknife. The innermost of these pellicles were reckoned the best, and those nearest the rind or bark the worst; and accordingly they were kept separate, and constituted different kinds of paper. As the pellicles were taken off, they extended them on a table, and then two of them were laid over each other transversely, so that their fibres made right angles. In this state they were glued together with the muddy water of the Nile, then pressed, dried, and lastly flatted and smoothed by beating them with a mallet; though sometimes, with a hemisphere of glass or the like, they gave them a farther polish.

It is to be observed, that besides paper, the ancients made ropes, sails, mats, blankets, shoes, and several domestic utensils of the papyrus; but, more useful inventions having set all this aside, the plant is now neglected, and almost extirpated out of Egypt.

Here it may not be amiss to add some remarks on the antiquity of the art of making paper of the papyrus, the origin of which is indeed very obscure, though undoubtedly it was first discovered in Egypt, and, according to Isidore, in the city of Memphis. The era of the invention is fixed by Varro, the most learned of the Romans, to the time of Alexander the Great, after the building of Alexandria

by that conqueror; but several objections of no small weight are brought against this decision. Pliny recites a passage out of a very ancient annalist, wherein mention is made of paper-books found in Numa's tomb, who was prior to Alexander above three hundred years. In effect, Guilandinus maintains with great erudition, that the name and use of the papyrus were known to the Greeks long before Alexander conquered Egypt; and yet some have doubted whether the art of manufacturing the papyrus was so ancient as Alexander's time, chiefly on this ground, that, for two hundred years after Alexander, men wrote on skins and barks of trees. But this reasoning is not conclusive; the scarcity of the new manufacture may account for the use of those things, and paper might have been known in Egypt, Judea, Syria, and other parts of Asia, long before the birth of Alexander, though not in common use; but it came later to the Europeans, and probably was first publicly known amongst them by the means of Alexander's conquest.

When the manufacture of the Egyptian paper ceased is another question; for at present it may be reckoned amongst those arts that are lost.

The palm of date tree is one of the most useful that Egypt produces, but we have little to say concerning it here, having already described it, and given an account of the manner of its propagation, amongst the vegetables of Persia. The largest in Egypt grow about Faiume, where they are sawn into boards, which is not usual in other places. We have only to add, that the dates are ripe in November, and are reckoned very proper to be eaten in that cool season, being of a warm nature, and comfortable to the stomach. From this fruit they likewise draw a tolerable spirit, much used

by the Christians of Upper Egypt; and this liquor in some measure supplies the place of wine, which Providence has not given to the country.

The dumez, the sycamore of the ancients*, which the Europeans call Pharaoh's fig, is common enough about the villages near Cairo, and is likewise found in some parts of Syria. It is a large spreading tree, with round leaves, and bears a fruit like the common fig, but something smaller, and not much esteemed. It is remarkable that the fruit grows on several short branches without leaves, that shoot out from the main limbs of the tree; and at the end of the fig there gathers a sort of water, which is let out by cutting the skin, otherwise the fruit will not come to perfection. The tree is propagated by planting its branches, which grow very fast.

The cassia fistula, which we call the pudding-pipe-tree, is not uncommon in Egypt, though it does not seem to be a native of the country. The tree is tall, its bark ash-coloured, its wood very firm, its grain close; and at the centre it is black, but yellowish towards the outside. Its flowers are also yellowish, and produce a fruit in the form of a long pod, which when ripe is full of a black sweetish pulp, divided by small woody cells, and in this pulp are found little hard grains, shaped like hearts, which are the seed of the tree. Cassia likewise grows in Brasil and in the Antillas, from which islands we chiefly receive it, though heretofore the popular cassia was that brought from the Levant.

* It is to be observed, that what we now improperly call the sycamore tree is in reality a kind of maple, and very different from the sycomorus of the ancients. Of the wood of the sycamore the ancient Egyptians made their coffins, some of which remain sound to this very day.

The Egyptians never use the cassia pods till they are four months old; for, when young and recent, they are observed to be noxious. They use the pulp extracted from the pod, in form of a bolus or potion; and are of opinion that taken internally it cools and purifies the blood. The Egyptians likewise use it to alleviate the gout and hot pains of the joints, applying it by way of plaister to the part affected. It allays thirst, and is therefore good in feverish disorders.

The acacia, or Egyptian thorn, ought to be mentioned amongst the vegetables of Egypt, as being of considerable use in medicine, and growing chiefly in that country and Arabia. From the green pods it bears, a juice is expressed and inspissated, which is brought to us in bladders, containing globular masses weighing from four to eight ounces, which are externally blackish, but internally of a shining brown colour, hard, brittle, and of an austere taste. This juice is called acacia, and is used for preventing inflammations in the eyes, for curing ulcers in the mouth and fissures of the lips, for fastening the teeth and strengthening weak joints. The German acacia is a counterfeit sort, being the juice of unripe sloes inspissated, and put up in bladders like the former.

In Egypt there is a tree called sount, which seems to be a species of the acacia, and probably a native of the country. It is often planted on the sides of the road, and there are little woods of it near some villages. Its keys or pods are used, instead of bark, in tanning of leather.—There is another sort called fetneh, which is cultivated in gardens, its yellow flowers being esteemed on account of their sweetness; but its roots, when open-

ed and bruised, emit a disagreeable smell, and that perceptible to a considerable distance.

Sena is the leaf of a shrub which is not peculiar to Egypt, but cultivated in several parts of Asia; and this is confessedly the best sort, being much superior in goodness to that of Italy. The shrub grows to the height of five or six feet, its leaves are shaped like the point of a spear, its flowers are yellow, and its fruit is a greenish flat pod, containing several cells of seeds resembling grape-stones, which some physicians prefer to the leaves themselves. Sena purges phlegm in a particular manner; but as it is apt to gripe, it ought to be given with caution to those who have weak bowels, or are of an inflammatory habit of body. That sena is to be chosen whose leaves are the sharpest pointed, and smell freshest; the brightness of its colour, and quickness of its flavour are also indications of its goodness.

The tree producing the fruit called sebestens is found in Egypt, as well as in several parts of Asia. It flowers in the spring, and the fruit is ripe in autumn, resembling a little plum or prune, being of a blackish colour, its pulp very sweet and glutinous, and enclosing a triangular kernel. Sebestens are of some use in medicine, as they moisten, soften, and obtund the acrimony of the humours. They are principally used in sharp catarrhs, bilious fevers, and obstructions of the belly; and in short, as in figure, so in virtues, they resemble damsons.—A kind of glue or birdlime is made of this fruit, called birdlime of Alexandria; and the Egyptians bruise it, and apply it as a cataplasm to discuss hard swellings.

In the Lower Egypt, especially near Rosetta, the lotus grows in great abundance. This plant is

a species of the water-lilly; its leaves float on the water, and cover its surface, producing many flowers, which were formerly wove into the crowns of conquerors. The ancient Egyptians made bread of the pulp of the lotus dried, which resembles that of a poppy; and they used to eat the root of it, which is round, and as large as an apple. After the flowers follow round green pods, which contain a seed not unlike that of a cabbage. At present the Egyptians make a drink of this plant, mixed with sugar, which is good against inward heats; and in summer they eat the stalks and heads of it raw, which are sweet, moistening, and cooling.

The alhenna, alcanna, or alkenna, as it is called in our shops, is a shrub that shoots forth many branches, bearing leaves like those of an olive tree, but shorter, broader, and of a more lively green. Its flowers are small, and set like those of the elder; and, having an agreeable smell, the Egyptians use them in their baths. They also make a sort of yellow dye of the seed of this plant, with which the woman paint their nails, and sometimes their hair, by way of ornament.—As to its medicinal virtues, its leaves have an astringent quality, so that, being chewed, they heal ulcers in the mouth. A decoction of them cures burns; and they are good against carbuncles, and other fiery inflammations, if applied as a cataplasm. The flowers bruised in vinegar ease pains in the head, being applied to the forehead.

Amongst other medicinal plants Egypt affords the coloquintida, though it is far from being peculiar to that country. The fruit of this plant, usually called bitter-apple, is about the size of a large orange, and full of pulp and seeds, both which are extremely bitter, especially the former. Colo-

quintida is brought to us from the Levant, and is of considerable use in medicine, but chiefly in officinal compositions, being an ingredient in most cathartic pills. It is one of the most violent purgatives known, insomuch that it sometimes excoriates the passages, produces strong convulsions, and brings on a fatal superpurgation. It is therefore seldom given inwardly in extemporaneous prescriptions, unless with great caution, and to persons of a robust constitution.

The culture of the *citrul*, or water melon is one of the most general and most prolific in Upper Egypt; the markets are commonly filled with this sort of fruit, and, as they are sold exceedingly cheap, the poor as well as the opulent may refresh themselves with their aqueous and saccharine juice. The water melons of Egypt are round, and grow to a large size; those of the best quality, when thoroughly ripe, have a rind perfectly smooth, and of a blackish green. The divisions are slightly marked; the pulp is white near the rind, and red in the middle; the seeds are flattish, their shell is black, and the inside is of a beautiful white.

At Siout there is another species called battech Saidi, which differs from that already described, in having the rind less smooth and of a whitish grey; the middle of the pulp of a lively rose colour, and the shell of the seeds hard, and of a yellowish red. It grows to a larger size than that with a green rind, and its pulp possesses the same agreeable coolness and saccharine flavor.

The shrub called *schismé* is cultivated in many of the gardens at Rosetta. It bears leguminous flowers of a deep yellow colour, and oblong leaves terminating in a point. The flowers are succeeded by long pods, bent in the form of a scythe and

contain flat seeds which are grey in the middle and encircled by a brown border. These seeds are considered by the Egyptians as a specific against the ophthalmia so prevalent in their country: they are pounded and reduced to a yellow powder, which is blown into the eyes, either pure or mixed with pulverized sugar.

The *helbé* or fenu-greek is properly cultivated for fodder; but M. Sonnini observes, that the Egyptians themselves eat it with avidity, so that, in Lower Egypt, it may be not inaptly termed the "fodder of men."—In the month of November, green helbé is carried about in large bundles for sale, and generally purchased at a low price. The natives pretend that it is an excellent stomachic, a specific against worms and dysentery, and a preservative against many disorders. Our author tells us that he did not dislike the taste of it: but with respect to its effects, it did not appear to do him either good or harm.

The Egyptians do not content themselves with devouring the stalks and leaves of this plant; but they also make the seeds sprout, and eat their long shoots. In order to obtain a quick germination of the seeds, they fill a basket with them, which is left to soak in running water for two or three days; they then heap them up on a bed of straw or grass, in order that they may grow warm; and cover a portion of the seeds thus steeped, with small earthen vessels, in the shape of mutilated cones, open at top. Through this opening the sprouts shoot out and intertwine, and are afterward confined in that situation by being bent. Lastly the vase filled with young sprouts is taken up, and they are eaten with the seeds from which they were produced. The seeds are also sometimes

roasted, and prepared like coffee, with the addition of lime juice. From the excellent properties attributed to this plant, the Egyptians consider it as a real panacea; and hold it in such high estimation, that the exclamation "happy are the feet that press the ground on which grows the helbé!" is become completely proverbial.

To this account of the vegetable productions of Egypt we shall add a few particulars relating to their harvests, of which they have two in a year, a spring-harvest from January to May, and a winter-harvest about October. For the latter, before the land is overflowed, they sow rice, Indian wheat, and what they call the corn of Damascus, which produces a large cane, and has an ear like millet. They also plant their sugar-canes at the same time; for all these require a great deal of water, especially rice, the largest crops whereof are produced near Damietta and Rosetta, where the lands are low, and more easily overflowed than those higher up the river. Their wheat and barley are sown in November, or somewhat sooner or later, according as the waters of the Nile retire; and what is sown at this time of the year they reap in March and April. At the same season they sow flax, lentils, lupines, and other vegetables of the like nature, which they gather in the spring; and about November they likewise cultivate their carthamus, or safranoun as they call it, which grows like succory, and the flower of it being of use in dying is accordingly brought into Europe. Their wheat is bearded, and their barley has six rows of grain in the ear, but is a coarse sort, and chiefly eaten by horses. They have no oats, but plenty of beans, with which they feed their camels; and the people likewise eat them green, both raw and boiled.

Neither have they any peas, but a sort of vetch with one large grain in each pod, which is eaten raw when green, and boiled when dry, and is not much inferior to peas in taste.—Here it may not be amiss to observe, that, though Egypt produces very good flax, it is not now so remarkable for its fine linen as it was anciently, which was carried to such a perfection, that the threads could scarce be discerned by the nicest eye. They had such plenty of it, as not only to clothe their priests and people of condition, and to make shrouds for their dead, but to export considerable quantities of it into other countries. In short, this manufacture was in great request all over the East; and the superfine sort of it, called byssus, was often dyed in purple, and bore an excessive price.

## ANIMALS.

WE do not find any great variety of animals in Egypt, but some of them are very remarkable, and deserve the attention of the curious. The hippopotamus, or river-horse, claims our notice in the first place, which is an amphibious animal well known to the ancients, but seldom venturing into the lower parts of Egypt. It is found, however, in the Nile, and seems to be a native of Ethiopia, but now and then comes down into Upper Egypt, though they are very seldom taken. Mr. Moore and other gentlemen, employed in the service of the African company, inform us, that they are common in the river Gambia; and Mr. Stibbs in particular observed, that the higher they went up that river, they were the more bold and numerous.

He tells us he has often shot them so as to stain the water with their blood, but they always got away, rising afterwards at some distance, blowing up the water, grating their teeth, and roaring with great anger. This gentleman adds, that Lemery is mistaken when he affirms they eat men, &c. their food being only grass, as is evident from their excrements.

It is not easy to apprehend how this animal came to be called a horse, to which it has scarce any resemblance, having a body like an ox, legs like a bear, large round feet with four claws on each, a tail like an elephant, and no more hair upon its body than there is upon that creature. In the lower jaw it has four large teeth, two of them crooked, the other straight, but standing forwards, and all of them as thick as the horns of an ox. Its eyes and ears are small, considering the bulk of the animal; but it has a wide mouth, great open nostrils, and an upper lip like a lion's, on which grows a bristley beard. M. Thevenot saw one of these creatures in Egypt, which had been shot by some Janizaries as it was grazing near the river, and his description of it agrees pretty well with that which we have given.* The teeth of the hippopotamus are said to exceed all other bones in solidity and whiteness, which colour they always retain, whereas ivory in time is apt to become yellow. As to what is affirmed both by the ancients and moderns, that the hippopotamus has a method of bleeding himself with a sharp pointed reed,

* The learned Bochart takes the hippopotamus, and not the elephant, to be the behemoth mentioned in the book of Job; and this opinion he supports by various arguments, which may be seen in the philosophical transactions, No. 326.

when he finds himself out of order, we look upon as a fiction; and, were it true, it is difficult to conceive how any one should have an opportunity of making the observation.

The crocodile is another amphibious animal, an inhabitant of the Nile, but not peculiar to that river, being also found in the Ganges and other large rivers of India. It is shaped like a lizard, has four short thick legs, and its feet are armed with claws. Its back is covered with impenetrable scales, like some old pieces of armour, and resembling (according to M. Thevenot) the heads of the nails in an old court-gate; but its belly is soft, and easily wounded. It has a broad flat head, a snout almost like a hog, and the opening of its mouth reaches to its ears. The teeth of this animal are white, long, sharp, and somewhat crooked, and its upper jaw is moveable, which can be said of few other creatures.* It has no tongue, but there is a fleshy substance lies along its lower jaw, which perhaps may serve to turn its food. Crocodiles have pretty large eyes, and are very quick-sighted, which is partly owing to a sort of channel at the back of each eye, whereby they can see behind them as well as before. It is said they can run fast, but, as they cannot easily turn their long unwieldy bodies, their prey has the greater opportunity of escaping. Some crocodiles are twenty-five or thirty feet in length, but though they are very cruel and voracious, they seldom venture to attack men in companies, nor even a single person, unless they can do it by surprize. It is reported

* The same is observable in parrots, and in the acus vulgaris or gar-fish, and perhaps in no other animal. See Ray's Synops. p. 109.

that they cannot take a man swimming in the water*, but if a man or beast stand near the river they jump out suddenly, and seize him with their fore claws, or beat him down with their tails, wherein their strength chiefly consists. They seldom go above twenty or thirty yards from the river, but lie basking in the winter upon banks of sand, and in the heat of summer they generally keep under water. When they are disturbed they do not seem much afraid, but walk away slowly, and hide themselves gradually in the river. The manner of their propagation is by laying eggs, to the number of fifty or sixty, and covering them about two feet deep in the sand, where they are hatched in twenty or thirty days. The people search for these eggs with an iron pike in order to destroy them†, for as soon as the young ones are hatched they crawl into the river. The flesh of the crocodile (according to Thevenot) is very good food, and not poisonous, as some have imagined. As to the tears of this animal, and his alluring cries like those of a child or person in distress, in order to draw people near him and make them his prey, we scarce need tell the reader it is nothing but a

* This seems to be a mistake, for Mr. Moore tells us of one of the African company's slaves, who was carried away by a crocodile as he was washing himself in the river Gambia; and Thevenot says that nobody cares to swim in the Nile, for fear of being seized by these devouring animals.

† Whether the Egyptians eat the eggs of the crocodile, or not, travellers have not informed us; but Mr. Moore says, he has seen the natives about the river Gambia eat them, even when they had young ones in them as long as his finger, on which account they reckon them the greater dainty.—The eggs are about as big as those of a goose.

fiction.—The usual way of killing crocodiles is perhaps by shooting them in the belly, where they are vulnerable, as we observed above; but travellers give an account of other methods of taking them. Sometimes they dig pits near the river, covering them slightly over, so that the crocodiles fall into them when they come ashore; and having let them remain there several days, till they are weakened by hunger, they hamper them with ropes, and draw them out alive. They have likewise a way of making some animal cry near the river, which entices the crocodile out, and a man who lies concealed takes an opportunity of thrusting a spear into his body; which being fastened to a rope, they let him run into the water to spend his strength, then drag him out, and tie his jaws together.—We have only to add, that most writers make the alligator and the crocodile the same, and we are inclined to agree with that opinion; at least there is little difference between them. Those who think otherwise observe, that the crocodile has longer legs, the knots on his back are thicker and higher, and his flesh has not such a musky scent as that of the alligator. Besides (say they) the crocodile carries his tail upwards like a bow, whereas the alligator drags his on the ground.

The ichneumon is of the weasel kind, with a longer and narrower body than a cat, somewhat approaching to the shape and colour of a badger, it being of a yellowish grey. Its nose is black and sharp; its legs short, and each of its feet has five toes; its tail is very long; its teeth and tongue much like those of a cat. This is a very cleanly animal, brisk, nimble, and of great courage, for it will engage a dog, and destroy a cat, by seizing on its throat. Yet to man it is quite innoffensive; and

in Egypt is kept tame, running about the house, destroying all vermin, and playing tricks like a spaniel. When wild, he cannot overtake any nimble animal; but this he makes up by his assiduity; his legs being short, he is not much seen, but he conceals himself still more, by crawling with his belly close to the ground, which he does all day long; but, his hearing being exceeding quick, upon the least noise, he starts up on his hinder legs. If the noise is made by any reptile, bird, or small beast, he observes whereabouts it is, places his nose directly in a line with it, and begins to move towards it. He is slow and silent, but constant in his approach; often stopping to hear, or look forward, to know exactly where the creature is. When he has got within about five feet, he stops; for nature, which has denied him speed, has given him strength to leap beyond most other creatures; and therefore, having taken good aim, he springs from the place, and falls directly on his prey. Thus he deals with birds and beasts; but to serpents he gives chace, and always seizes them by the neck, to avoid their bite. The ichneumon is not only an enemy to serpents themselves, but also to their eggs, which he hunts after continually and destroys, though he does not feed upon them. How mercifully, says a pious writer, has God given this animal in the countries where those terrible reptiles most abound! and which, without this provision, would be so over-run with them, as to be uninhabitable.

The dung of this animal, mixed with mustard-seed and vinegar, is esteemed good against the gout, being applied to the part affected; and it is said to be sudorific, to cure the cholic and venomous bites, and to purify the blood.

The Thaleb, is an animal which has some resemblance to the jackal, but at the same time differs from it in some striking features, and particularly in its habits. And M. Sonnini is of opinion, that all which has been asserted, both by the ancients and moderns, respecting the *fox* of Egypt must be understood to apply to the *thaleb* who has, in fact, several features similar to those of the fox.—The hair of this animal is of a bright fawn colour, deeper on the upper than the under part of the body: the tail is remarkably large, and striped transversely with black and grey; the eyes are literally brightened with the fire of vivacity; and the countenance is expressive of peculiar craft and cunning. While the jackals, merely ferocious, frighten away their prey by their howlings and numbers, and are frequently compelled to appease their hunger with food the most disgusting to their appetite, the more fortunate thaleb, surpassing them in address, does not associate with others, but goes alone; in the height of day approaches the habitations of men, establishing near them his subterraneous abode, whence he creeps out with the first favourable opportunity, to surprise the poultry, carry off the eggs, &c. One of the handsomest of quadrupeds, he would be, perhaps, one of the most amiable, if his tricks and his talents for depredation did not bear too strong an impression of falsehood and knavery.

"Taking one day a contemplative walk in a garden," says our author, "I stopped near a hedge; while a thaleb, who heard no noise, was coming toward me through the hedge, and, on his getting out, he found himself close at my feet. On perceiving me, he was so struck with astonishment that he did not even attempt to escape, but,

fixing his eyes upon me, remained motionless for some seconds. His embarrassment was painted in his countenance, in a manner of which I could not have conceived him susceptible, and which indicated a very delicate instinct. For my part, I was afraid to make any motion that might disturb this situation, which afforded me considerable pleasure. At length, after taking a few steps from one side to the other, as if not knowing which way to fly, still keeping his eyes turned toward me, he made off, not running, but stretching himself out, or rather creeping away, placing his feet alternately with singular precaution. He was so much afraid of letting himself be heard in his flight, that he held his large tail almost in a horizontal position, that it might neither drag on the ground nor brush against the plants. On the other side of the hedge I found the remains of his meal; it was a bird of prey, which he had nearly devoured."

The species of goat spread through Egypt is the Syrian; but it has sometimes been called the Mambrina-goat, because it is common on the mountain of that name, situated in the southern part of Palestine. It is generally of a bright reddish colour; with short hair and small horns: its head is longer, and rounder in front than that of the other species, which gives this goat a more lively, but, at the same time, a foolish aspect. One character by which it can be easily distinguished at first sight is its extremely large and pendulous ears; an unequivocal mark of its having been long a domesticated animal.

In the moist plains of Lower Egypt, the kids of this species are not very good eating; and it may even be presumed that their flesh is unwholsome, as

the dietetic system of the ancients forbade its use in the districts most inundated, while it was permitted in the mountainous parts of Thebais. Although of considerable size, these goats cannot be used as beasts of burden, or for the saddle, as has been asserted by Bochart. However they afford abundance of excellent milk, of which there is a great consumption. They are said to bear six or seven kids at a time; and as they have young twice in a year, it is not uncommon to see one goat followed by fourteen kids.

Amongst the winged tribes of Egypt we find the ibis, a bird held in great veneration by the ancient Egyptians, on account of their destroying great numbers of serpents and other pernicious or useless reptiles; but this bird is now rarely to be seen in the country. Those that are observed about the islands of the Nile are most of them greyish; whereas Herodotus describes two kinds of them, the one all over black, and about the size of a heron; the other white, except the head, neck, and ends of the wings and tail, which are black as the former. However, though the ibis be not so common in Egypt as heretofore, the want of it is sufficiently supplied by the stork, a bird almost as much esteemed and reverenced by the present Mahometans in that country, as the ibis was by its ancient inhabitants; to kill a stork, or even to molest it, being accounted a sort of profaneness *.

Another bird much regarded in Egypt is a sort of large hawk, of a brownish colour, with a very

* A particular account of the stork, and some conjectures relating to the origin of the regard paid to it, has been already given in Vol. II. p. 211 & seq.

fine eye, which may be looked upon as a domestic animal, as it frequents the tops of houses, so that one may often see hawks and pigeons sitting quietly together. This may seem strange, but it is to be observed, that these hawks are not birds of prey, though they eat flesh when they happen to find it.

They have likewise a large white bird with black wings, shaped like a raven; but it is very ugly, and not at all shy. These live in the same manner as the tame hawk just described, and are called Pharaoh's hens.

They have a very beautiful fowl called the messenger bird, which is extremely common. It is almost as large as a dove, and is not only finely speckled, but has, on the top of its head, a tuft of feathers, which it spreads when it alights on the ground. There is here also a beautiful white bird, which the Europeans call the field-hen: it resembles a stork, but it is not half so large; and is seen about the fields like tame fowl.

The wild geese in Egypt, of which they have abundance, are of a different kind from ours in Europe; and vast numbers of wild ducks frequent the pools in the low grounds, which are not quite dry till some months after the inundation of the Nile is abated. Their partridges are likewise very different from those of other countries, being about the size of a small dove. The cock is a beautiful brown bird, adorned with large spots of a lighter colour; and the feathers of the hen are like those of a woodcock. As to their tame fowls, besides the common sort, they have a kind of hens which are very cheap, and little inferior to geese in bigness.

The sandy and mountainous tracts, which run

along each side of the fertile part of Egypt, abound with animals of the serpent and lizard kinds. Of the former, a horned viper, the cerastes of the ancients, is the most common species, and great numbers of them are taken, being reckoned of excellent use in medicine. They are of a yellowish colour, like that of the sand in which they are found; and have a sort of horns, somewhat resembling those of snails, but of a real horny substance. They are remarkable for living a long time without any manner of sustenance, as has been found by experience; for Dr. Shaw tells us he saw a couple of these vipers, which an apothecary at Cairo had kept five years in a bottle without any sort of food, unless a little sand may be reckoned as such, in which they coiled themselves up at the bottom of the bottle. When the doctor saw them, they had just cast their skins, and were as brisk and lively as if but newly taken.

A serpent of great bulk called thaibanne (perhaps the Thebanus ophites of the ancients) is found in Egypt, though not very frequently. Some of them are said to be three or four yards long, and as thick as a man's arm. We find no particular description of this serpent, but it is said to have a fleshy substance reaching on each side of its neck from its jaw to about a third part of its body, which it can extend or contract at pleasure, and thereby throws itself forwards surprisingly. This is not improbable; but as to dragons and flying serpents, of which some authors speak very positively, we are apt to think they never existed either in Egypt or any other country, but merely in imagination.

Among all the serpents of Egypt none appear to be more remarkable than what is called the

miraculous serpent, or the serpent Heredy. At a considerable distance up the Nile is what is called the grotto of this serpent, which is the tomb of a pretended Turkish saint, adorned with a cupola. The Arabs affirm that this saint who is named Heredy, dying, was buried in this place; and by the favour of the Almighty was transformed into a serpent that never dies, but heals diseases, and bestows favours on all who implore his aid. Of this serpent both Dr. Pococke and Mr. Norden have given a very particular account, and perfectly agree in what they relate of it. It appears that this serpent pays a greater respect to the rich than to the poor; for, if a governor be seized with any disorder, the serpent has the complaisance to suffer himself to be carried to his house; but one of the common rank must not only make a vow to reward his priests, but send a spotless virgin on the important embassy: and none but the fair have any influence on him; and, should her virtue be in the least sullied, he would be inexorable. On her entering into his presence, she makes him a compliment, and, with the greatest humility, intreats him to suffer himself to be carried to the person who has need of his assistance. When being unable to refuse any thing to female virtue, he at first begins with moving his tail, on which the young woman redoubles her intreaties, till, springing up to her neck, he places himself in her bosom, and there remains quiet, while he is carried in state, in the midst of loud acclamations to the house of the person who dispatched the young ambassadress. No sooner is he brought into the room, than the patient begins to find himself relieved. Yet this wonderful physician does not withdraw, he being very willing to remain some hours with the patient,

if during the whole time they take care to regale his priests, who never leave him. All this is performed to admiration, provided no Christian or other unbeliever comes in; for the sagacious serpent, on perceiving him, would instantly disappear; the priests would then search for him in vain; and they say it would be impossible to find him; for, were he carried to the other side of the Nile, he would return invisibly to his dwelling in the tomb. In short, the Arabs boldly assert, that, were he cut in pieces, the parts would immediately join again, and that, being immortal, nothing can put a period to his life. Even the Christians, who ought to be possessed of a greater degree of wisdom than these ignorant Arabs, pretend that this serpent is the devil himself, whom the Supreme Being has permitted to mislead the people; and in this belief they are confirmed by a tradition, that to this place the angel Gabriel banished the devil Asmodi*, whom he is said to send into Egypt. Mr. Norden observes, that he is firmly persuaded that both the Arabs and these Christians offend against the rules of reason. "Before we consider a thing as miraculous," says he, "it is necessary to examine whether the fact itself be true; whether the circumstances are such as are pretended, and whether no fraud be used. I agree that the serpent is there, but he cannot be immortal; he undoubtedly dies, like other serpents; and the priests who draw profit from him, substitute another of the same kind in his room. Were they indeed to cut the serpent in pieces, and were the parts seen to join again, it might be esteemed a proof of its immortality; but they can never be brought to this; and, when

* Tobit viii. 3.

the emir of Akmin ordered them to make this experiment in his presence, they excused themselves. "Is there any thing easier than to make a tame serpent obey certain signs? The virginity of the ambassadress is secured by her being so young as to be free from suspicion, and serpents are known to be attracted by certain odours and herbs, with which the girl may be rubbed; at least she is adorned with chaplets and garlands of flowers, in which they take care not to forget such as are agreeable to the serpent. In short, if it be asked, how it is possible that it should disappear from the sight of a number of people? I answer, that it is sufficient to conceive these priests are excellent jugglers, and there will be no difficulty in imagining them capable of conveying away the serpent in the presence of a multitude of spectators, without the most attentive and quick-sighted being able to perceive it: whoever has seen the tricks daily played by the Egyptian mountebanks in the great square before the castle of Cairo, must have been struck with feats much more remarkable than this."

According to Mr. Grose, it is a custom in India that, when a snake, lurking in a house, has bit any person, one of their jugglers is sent for, who, with an instrument that has some resemblance to a flageolet, plays certain tunes, the sound of which operates so powerfully on the snake, that he leaves his hole, and, with visible reluctance, presents himself to those that stand ready to kill him. Our author observes, that he is fully aware of the ridicule this will meet with from many; but adds, that he prefers even the certainty of incurring it, to the suppression of what he himself tried to disbelieve, till convinced of the truth of it. To this

we shall add another account from the same author, which will confirm the above reasons, and show that there is nothing miraculous in the above Egyptian snake. It is usual in India, says he, for the jugglers to carry snakes in round baskets; and, when they uncover them, begin to sing and play upon their pipes, at which all the snakes raise the upper parts of their bodies, and keep time with the music, by the motion of their heads, while their lower parts remain coiled up in the bottom of the basket. If the master ceases ever so little, they leave this kind of dancing, and, getting out of the basket, hiss at each other, as if they would fight; but, on renewing the music, they immediately fall to dancing again. Europeans, he adds, are not very fond of having these snakes come near them; though they are told by their owners, that, their teeth being pulled out, there is no danger to be feared from them.

In Egypt there are several sorts of asps, whose poisons have different effects, but are all finally mortal. That species which Cleopatra is supposed to have used to put an end to her life, and thereby avoid the disgrace of being led as an ornament in Cæsar's triumph, is of a singular nature, being very poisonous, and yet supposed to eject a less quantity of venom than any other of the kind. This is certain, that the punctures made by its teeth are hardly perceptible, but the effects of it are very surprising; for, after a person has been bitten about an hour, he finds himself heavy and inclined to sleep, without any pain or disorder of mind; his limbs gradually lose their strength, a pleasing stupidity succeeds, and at length he dies quietly, even without a groan. This sort of asp has very red eyes, and two of its longest teeth are

hollow, from whence its poison proceeds. Its scales are hard, dry, and reddish, and its neck swells considerably when it is provoked.—Another species of asps, which seem to be what we call darts, have their holes in the banks of the Nile, from whence they spring out suddenly upon the unwary passenger; and their bite is so venomous, that amputation is the only cure, without which the patient dies in terrible agonies. The belly of this asp is white, his back of a deep blue, and on each side he has a black line from head to tail. His body is of an ash-colour, full of round black spots no bigger than lentils, each of which is encompassed with a circle.

The chameleon is an animal very common in Egypt, but, having already given a particular account of it and its surprising properties, we refer the reader thither*, to avoid unnecessary repetitions; and only observe, that the chameleons of Egypt are generally larger than those of other countries.

The scink, which is commonly found under flat stones, or in the holes of old walls and ruins, is taken by some to be a land crocodile, as it exactly resembles that which frequents the water; but it is very small and harmless, feeding chiefly upon fragrant herbs and flowers.—There is another ugly lizard in Egypt, that is seen about the walls of decayed buildings, but in the greatest numbers at Alexandria.

There is a lizard called worral, which is sometimes three feet or forty inches in length, and six or seven inches broad, usually of a bright reddish colour, with dark spots intermixed. It has

* See Vol. III. under the animals of Turkey in Asia.

no teeth but a forked tongue, which it puts out like a serpent, and feeds upon flies and the smaller lizards. Holes and caves in the mountains are the places it frequents, where it sleeps in the winter, and only appears in the heat of summer. It is a harmless creature, and of great docility, and particularly remarkable for its being affected with music.—Dr. Shaw says, he has seen several of these lizards keep exact time and motion with the dervises in their circulatory dances, turning when they turned, and stopping when they stopped; and this the doctor supposes may have some relation to the quality which the serpent is imagined to have of being naturally affected with music: but Dr. Pococke, who procured a worral alive, could not perceive that music had any influence upon that animal.

## ANTIQUITIES.

WE cannot begin this article better than with a survey of the famous pyramids, those wonderous monuments of the wealth and grandeur of the ancient kings of Egypt, which are on all hands allowed to have been built at least twelve hundred years before the birth of our Saviour. The three pyramids that are most taken notice of by travellers, as exceeding all the rest both in bulk and beauty, are situated on a ridge of rocky hills on the borders of the Lybian desert, about ten miles westward from the village of Gize or Geeza, which is almost opposite to the city of Cairo, and is supposed to be the spot where the ancient Memphis stood, though there are now not the least traces

to be found of the ruins of that renowned city. The hill, on which they stand, rises with an easy ascent from the plains of Egypt, to the height of a hundred feet or upwards; and the rock consists of such freestone as is used in the pyramids themselves.

The largest of these pyramids, which has suffered least by time and weather, is six hundred and ninety-three English feet square at the basis, and its perpendicular height is four hundred and ninety-nine feet*; but, if we take the height as the pyramid ascends inclining, it is then six hundred and ninety-three feet, which is exactly equal to the breadth of the basis, so that the angles and basis make an equilateral triangle. The whole area therefore of the base contains four hundred and eighty two thousand two hundred and forty-nine square feet, which is something more than eleven acres of ground.

On the outside of this pyramid there is an ascent by steps, which at the bottom are four feet in height and three in breadth, but the higher we go they gradually diminish; being so contrived, that a line stretched from any part of the basis to the top would touch the edge of every step, if the stones were not impaired by the air and rain; but at present they are so washed and mouldered away, that they cannot conveniently be ascended, except on the south side or at the north-east angle. The breadth and depth of every step is one entire stone, several of them thirty feet in length; and the

* This measure is Mr. Greaves's, who observes, that, notwithstanding the boasted height of this pyramid, the spire of St. Paul's church in London, before it was burnt, exceeded it, being (according to Mr. Camden) five hundred and thirty-four feet perpendicular from the ground.

number of steps, according to Mr. Greaves, is two hundred and seven, but travellers differ in their computations. Whether these steps were intended to facilitate the ascent to the top, or were designed to be filled with prismatical stones, so as to make each side of the pyramid smooth and upon a plane, we shall not determine, but Dr. Shaw gives some cogent reasons for the latter opinion.

The top of this pyramid does not end in a point, as it appears to those who view it from below, but in a little square, consisting of nine stones, besides two that are wanting at the angles. Each side of the platform is about sixteen feet, so that a considerable number of people may stand upon it, from whence there is one of the most beautiful prospects that can be imagined. It has been reported by many travellers, that a man standing on the top cannot shoot an arrow beyond the bottom of the pyramid, but that it will fall on some part of the structure; whereas it is certain that a strong arm and a good bow will send an arrow to a much greater distance. As to the story of these pyramids casting no shadows, it is contrary both to reason and experience; for, though at noon they cast no shadow in the summer, and for almost three parts of the year, yet in winter at noon, and in the morning and evening all the year round, they certainly cast a shadow proportionable to their bigness: and it is observable, that Thales took the height of these pyramids by their shadows above two thousand years ago, as we learn from Pliny and Laertius.

On the north side of the large pyramid, sixteen steps from the bottom, there is a square narrow passage, leading downwards into the body of the structure. This entrance is about three feet high,

and as many wide, and its length ninety-two feet and a half. Those who have been curious enough to creep through this narrow passage inform us, that at the end of it there is a wider place, about ninety feet long and of unequal breadth, supposed to have been dug for the discovery of some hidden treasure, but not remarkable for any thing except the large bats by which it is inhabited. On the left hand there is another passage, five feet high and a hundred and ten in length, through which is an ascent to two galleries, one of them running off horizontally, and the other rising upwards in the same direction with the passage. The horizontal gallery leads to an arched vault or chamber, about seventeen feet long and fifteen broad, which smells like a grave, and is half full of rubbish. The walls are entire, and plastered over with lime; and the roof consists of large smooth stones, laid sloping, so as to meet at top in an angle. Near the entrance into this gallery there is a circular well, three feet in diameter, which is lined with white marble; and little holes are left in the sides, opposite to one another, wherein a person that descends into it must fix his hands and feet; which sort of contrivance is seen in many of the wells and cisterns of Egypt.—The ascending gallery, whether we regard the materials or workmanship, is not inferior to the most magnificent buildings. It is paved and lined with white polished marble, cut in vast squares, and so curiously put together that the joints are scarce discernible. The height of this gallery is twenty-six feet, its breadth six, and on each side of it there are benches of polished stone.

From hence opens a square hole into some little chambers or closets lined with marble, and

then into a noble hall situated in the centre of the pyramid, being equally distant from all the sides, but rather nearer the basis than the top. The floor, sides, and roof of this room are all of Thebaic marble; and the stones are of a prodigious size, especially those that form the roof, lying across from one side to the other like so many huge beams, and supporting an enormous weight. As to its dimensions, its length is thirty-four feet, its breadth seventeen, and its height near twenty.

In this stately hall stands a tomb, placed exactly north and south *, and equally distant from all sides of the room except the east, from whence it is as far again as from the west. It consists of one piece of marble hollowed, without any lid or covering, and on being struck it sounds like a bell. The general opinion is, that it was designed for the tomb of Cheops or Chemmis, king of Egypt, the supposed founder of this pyramid. There is no appearance however of any corpse having ever been laid in it, and probably there never was; for Diodorus, who wrote about sixteen hundred years ago, informs us, that Chemmis, and Cephren, the founder of the next pyramid, notwithstanding they intended these structures for their sepulchres, were not buried in them, the people being so ex-

* It has been observed, of this pyramid that its sides stand exactly facing the four cardinal points, east, west, north, and south, and consequently mark the true meridian of the place; which precise position could not well have been owing to chance, but was in all probability the effect of art and design; and that it really was so seems confirmed by the position of the tomb within: so that this ancient structure may be considered as a strong and lasting proof of the early progress of the Egyptians in the science of astronomy.

asperated by the hardships they had undergone in the erecting them, and by their repeated cruelties and oppressions, that they threatened to tear their dead bodies in pieces; upon which they commanded their friends to bury them in some obscure place in a private manner.

This tomb is of the same marble with which the whole room is lined, viz. a sort that is streaked and variegated with black, red, and white spots; which some call Thebaic, but others suppose to be a kind of porphyry. Its figure is like an altar, and the marble smooth and plain, without any sculpture or other ornament. If we measure its outward superficies, it is seven feet three inches and an half in length, three feet and almost four inches in depth, and much the same in breadth; but the cavity within is little more than six feet long, two feet deep, and as many broad. From these dimensions, as well as from the embalmed bodies in Egypt, it has been justly observed by Mr. Greaves and others, that there is no decay in nature, but that the men of this age are of the same stature they were three thousand years ago. How this tomb was brought into the place where it now stands is difficult to conceive, it being impossible it should come through the narrow passages above described; which makes it generally supposed to have been raised up thither from without, before the room was finished, and the roof closed up: but perhaps there is some other way to the room within the structure, which has not yet been discovered.—We have nothing to add concerning this tomb, but that there is a hole dug underneath it, and a large stone in the pavement near it removed, which was probably done in hopes of finding some treasure; the burying of money in sepul-

chres being not only a practice of the ancients, but continues to this day in some parts of the East-Indies.

Travellers take notice of a remarkable echo, of rather of a long continued sound, which is heard on discharging a musket at the entrance into the first pyramid. This is mentioned by Plutarch; but, surprising as it is, the effect may be accounted for, as Mr. Greaves observes, by considering, that the sound being shut in, and carried along those smooth narrow passages already described, to the middle of the pyramid, finding no way out, reflects upon itself, causing a circulation of the air and a confused noise, which gradually lessens and dies away as the motion ceases.

To the southward of the first pyramid, at a very little distance, stands the second, supposed to have been built by Cephren the brother of Cheops, and designed for a sepulchre, as well as the former. The stones of this pyramid are white, but much less than those of the first; nor do the sides rise by degrees or steps, like the other, but are smooth and even; and the whole structure, except on the south, seems not to have received any considerable damage. The dimensions of it, both as to height and breadth, are much the same as those of the pyramid already described, but its ascent is somewhat steeper. At some distance from the basis, on the north side of this pyramid, there is a hole, which probably was made in order to find a passage to the inside of it; but none has been yet discovered, nor is it known whether there are any rooms or apartments within, though it is reasonable to suppose there are, as well as in the former. On the north and west sides of this pyramid there is a fossa or trench, about ninety feet in

breadth and thirty in depth, along which are a great number of cells or apartments hewn out of the solid rock, designed (as is supposed) for lodgings for the Egyptian priests. They are entered through such square openings as that described in the first pyramid, and many of the chambers have a communication with others behind them, which are now filled with rubbish.

About a furlong from the second pyramid stands the third, upon such an eminence or rising of the rock, that it appears equal to the former at a distance, though it is much less both in height and breadth. Some ancient writers affirm, that this pyramid was built, or at least cased, with black Ethiopic marble; but, whatever it may have been formerly, at present the whole structure seems to be of a clear whitish stone, somewhat better and brighter than either of the former pyramids. Each side of its base is about three hundred feet, and its height is much the same; and all round it are to be seen the remains of the granite with which it was adorned, the greatest part whereof has been carried away, though some few pieces continue in their places. Mycerinus, the son of Cheops, is said to have been the founder of this pyramid, and Diodorus says his name was engraved on the north side of it, but nothing of that kind is to be seen at present.

At about the distance of ten miles from these pyramids, are those of Sacotra, so called from a mean village of that name. These pyramids, which extend from north to south, are seated at the foot of the mountains, in a plain that appears formed by nature for the use to which it is applied, it being of no great extent, but so high, that it is never overflowed by the Nile. One of these pyramids

rises above the rest, and is called the great pyramid to the north. Mr. Norden, on measuring it, found that its east side extended six hundred and ninety feet, and the north side seven hundred and ten. Its perpendicular height is three hundred and forty-five feet. It has a hundred and fifty-six steps, each from two to three feet in height; and is built of the same kind of free-stone as the others, but was cased with a fine hard stone, which is still remaining in several parts of the structure, though a great deal has fallen down. About one third of the way up, is an entrance three feet five inches wide, and four feet two inches high. The stones, within, are of the height and breadth of the entrance, and about five feet in length. Our author and his companions entered this passage which is steep, and has also holes cut as rests for the feet. Having passed through it, they entered a room twenty-two feet and a half long, and eleven feet ten inches wide. At the height of ten feet six inches, a range of stones projects five inches inwards on each side; and in the same manner twelve tiers project one farther than the other, till they meet at the top. To the west of this room is another that resembles it; and they are both formed of smooth white stones, so large, that there are only seven of them in length, and three or four in breadth.

Another pyramid, at the distance of a mile to the south-east, is termed the great pyramid to the south, and is about six hundred feet square at the bottom. It is built within of good hewn stone, and appears to have been originally cased all the way up.

About two miles to the east of the last great pyramid is one on a lower ground, built of unburn-

ed brick, that seems to have been made of the mud of the Nile, it being a sandy, black clay, with some pebbles and shells in it, mixed up with chopped straw, in order to bind the clay together, as unburned bricks are usually made at present in Egypt, and other parts of the East. Some of these bricks are thirteen inches and a half long, six inches and a half broad, and four inches thick; but others are fifteen inches long, seven broad, and four inches three quarters in thickness; but were not laid so as to bind each other. This pyramid is much crumbled, and very ruinous. It extends two hundred and ten feet on the west side, and is a hundred and fifty feet high; and the top is forty-three feet by thirty-five. It seems to have been built with five degrees, each being ten feet broad, and thirty deep; yet the ascent is pretty easy, on account of the bricks having crumbled away.

Notwithstanding what we have said of Cheops, Cephren, and Mycerinus, it is a subject of much dispute, who were the builders of these wonderful structures. Some pretend they were erected by the patriarch Joseph for granaries, to lay up the corn of the seven plentiful years against the ensuing famine; but, most of them being solid piles of stones, with very few cavities within them, and their figure the most improper of any for that purpose, the conjecture at first sight appears groundless and absurd. Others suppose them to have been erected by the Israelites, during their heavy bondage in Egypt under the tyranny of the Pharaohs; and this opinion is supported by the authority of Josephus, who says they were employed in cutting canals, building walls, throwing up banks, and, amongst other oppressions, in raising the vast pyramids in question. We may add to this, that

no time seems more likely for the Egyptian kings to undertake such amazing structures, than when they had so many hundred thousand slaves in their dominions, whom it was deemed prudent to keep in action, to divert them from mutiny and rebellion.

After all, it must be confessed, that there is little agreement either among the natives of Egypt, or ancient historians, with respect to the founders of these pyramids; and, as this is a matter of uncertainty, it would be in vain to endeavour to determine the time when they were erected. However, if we do not allow them to be so ancient as the time of the Israelites being in Egypt, (which yet does not appear improbable) we must grant them to be above three thousand years old; for Herodotus, who lived above two thousand two hundred years ago, could find little satisfaction in his enquiries concerning them; and Diodorus, who lived before the birth of Christ, supposes the great pyramid to have been built at least a thousand years before his time.

Another thing disputed is the purpose for which these pyramids were built; though the generality of writers on this subject are of opinion that they were intended for sepulchral monuments. Diodorus confirms this hypothesis, and Strabo supposes all those near Memphis to be royal sepulchres. And yet some think it not improbable, from the sumptuous apartments, galleries, benches, &c. that they were designed for other uses than mere sepulchral monuments, which are commonly plain arched vaults; perhaps for temples, as Dr. Shaw imagines; for, as the whole Egyptian theology was couched in mysterious emblems and figures,

no places could be better contrived for the adyta *, which had so great a share in their mysteries. Besides, those chests which have been supposed to have been the coffins wherein the bodies were deposited, chiefly because they are about six feet long, the length of a man, may rather have been designed to enclose some of the priestly vestments, or sacred utensils, or some of their idols, &c. especially considering they are of an oblong square figure, and not narrower at one end, which was the common form of coffins; and then the depth and breadth of these, which is about three feet, are out of all proportion, as Dr. Shaw observes. However, there is another reason to think these huge structures were designed for sepulchres, arising from the theology of the Egyptians, who not only believed the resurrection, but that, as long as the body endured, the soul continued with it. Hence it was that they took so much care to embalm their dead, in order to preserve them from corruption, that so the souls of the deceased might long remain about their respective bodies, not to animate or quicken them, but only as attendants or guardians, unwilling to leave their former habitations: And upon the same account they deposited them in the most durable buildings, endeavouring thereby, as far as they were able, to render them eternal.

The reason why the Egyptians built these monuments, in a pyramidal figure, seems to have been, according to Mr. Greaves, because this is the most permanent form of structure, being neither overpressed by its own weight, nor so subject to the

* By this word is meant a secret or retired place in the pagan temples, where oracles were given, and into which none but the priests were admitted.

sinking in of rain as other buildings. Add to this, that they might thereby intend to represent their deities, it being customary among the heathens to express the objects of their worship either by columns fashioned like cones, or by quadrilateral obelisks, which are a lesser sort of pyramids, and of which several are still standing entire in different parts of Egypt.

How these wonderful structures were built, and by what means the stones, especially those vast ones of the first pyramid, were raised to such a height, has likewise been matter of much speculation. Herodotus, whose expressions are a little obscure, supposes, that, when they had laid the first range, they raised others thither from the ground, which formed the second row; and, by an engine placed upon that, they drew up the stones that composed the third; there being as many engines as layers of stone, or else one that might be occasionally removed. Mr. Greaves imagines, that they first built a large tower, the height of the intended pyramid, to the sides whereof they applied the rest of the structure, piece after piece, like so many buttresses, which lessened in height till they came to the lowest degree. Some have conjectured, that they took the advantage of building round a hill; if so, these pyramids were built with much less labour and expence than is generally imagined. In short, in a matter of such uncertainty, every one must be left to his own conjectures; but, as to those already mentioned, they appear liable to various objections: Nor does there seem any reason for endeavouring to lessen the difficulty of erecting these prodigious structures, since the wealth of the Egyptian monarchs, and the number of hands employed, were undoubtedly equal to the undertaking,

though confessedly great and wonderful.—Diodorus tells us, that the number of men employed in building the first or greatest pyramid was 360,000, large bodies of them relieving one another at stated periods, and alternately taking their turns of rest and labour. It is agreed that twenty years were spent from the beginning to the finishing of the work; and Herodotus adds, that in his time there was an inscription on the pyramid, declaring how much had been expended only in radishes, onions, and garlic for the workmen, being no less than sixteen hundred talents of silver, or about 400,000*l.* sterling; from whence we may judge to what vast sums the whole expence must have amounted.

At a small distance from the second pyramid stands a monstrous figure, usually called a Sphinx, which the ancients represented as having the head and breasts of a woman, the wings of a bird, the claws of a lion, and the body of a dog. This figure the Egyptians used in their hieroglyphics to represent a harlot, intimating the danger of being captivated with the beauty of a faithless woman, whom the fond lover in the end finds as cruel and rapacious as a lion. Of this sphinx, however, there is little more to be discerned at present than from the shoulders upwards, being a huge bust of a woman, all cut out of the solid rock, except the upper part of the head, which seems to have been a separate stone. Its height is almost thirty feet, and the breadth is much the same at the lower part of the neck, or beginning of the breast. It is fifteen feet from the ear to the chin, and we may suppose the other parts of the figure are proportionable; but the sand is so accumulated round it, that one can but just discover the top of the back, wherein there is a hole about five feet long, seventy-five

feet (according to Dr. Pococke) from the hinder part of the neck, and thirty from the tail. Besides this hole in the back, there is another on the top of the head, into which a full grown person may descend, and from whence it is supposed the artful priests used to deliver their oracles. Some travellers have also imagined, that there is a subterraneous communication from the sphinx to the largest pyramid; but this seems to be mere conjecture. This rock is dug away all round the sphinx to a considerable distance, which was undoubtedly employed in building the pyramids. Pliny makes mention of this sphinx, and tells us it was thought to be the sepulchre of king Amasis.

In the plain in which the last pyramids are placed, are the famous catacombs or mummy-pits, of which travellers give us the following description: Those who have the curiosity to visit these pits, where the mummies or embalmed bodies are deposited, are let down by ropes, into a kind of wells about four feet square, cut through a slaty rock, covered with sand, which, being moved by the wind, sometimes fills up these entrances. Some of the pits are twenty or twenty-five, and others thirty feet deep; but several of them are cased, as far as the depth of the sand, with large unburned bricks. At the bottom there are horizontal passages, which lead into square rooms, where are found the remains of embalmed bodies, swathes scattered up and down, and sometimes chests and coffins standing upright and entire, which are made of sycamore or Pharaoh's fig-tree, as we have already observed, and have continued sound in these subterraneous apartments above three thousand years, notwithstanding the wood is spongy and porous to outward appearance. The top of the

coffin is commonly shaped like a head, with a face painted upon it resembling a woman; the rest is one continued trunk, and the bottom is broad and flat, upon which it stands upright in the repository. Most of these coffins are adorned with hieroglyphics, and some of them are finely gilt and painted, either with the figure of some tutelar deity, or that of the deceased. Little images of various kinds, some of copper, others of stone, are generally ranged round the pedestals of the coffins, as if designed for so many guardian genii and attendants. The bodies, upon opening the coffins, appear wrapped up in a linen shroud, upon which are fastened several scrolls, painted with hieroglyphic characters. These scrolls commonly run down the belly and sides, or else are fixed on the knees and legs. On a kind of head-piece of linen, which covers the face, the countenance of the person is represented in gold, and the feet have also a covering of the same, shaped like a slipper, and painted with hieroglyphics. The whole body is swathed with fillets, or narrow bandages of linen, which are wrapped round in such a curious manner, with so many windings, and so often one upon another, that it is supposed a corpse has seldom less than a thousand ells of filleting. Those especially about the head and face are laid on with wonderful neatness, insomuch that the shape of the eyes, nose, and mouth are plainly perceived. The breast is also covered with folds of linen richly gilt and painted; and sometimes we see the figure of a woman with her arms extended, the wings of fowls, or other ornaments.

It is to be observed, that the mummy-chests or coffins are not always of wood, some few being of stone; and, of the wooden ones, some are made

of boards, and other hollowed out of one piece of timber. There are also some bodies that have no other coffins than pieces of linen gummed or glued together, which yet are as durable as those of wood or stone; and there are others which have no coffins at all, but are wrapped up in reeds or branches of palm. These last, we may imagine, were the poorer sort of people, whose families could not bear the expence of coffins; and it is probable they were piled one upon another, whereas the coffins stood upright upon their pedestals.

Some travellers make mention of several square boxes that are found in these catacombs, usually painted with hieroglyphics, and having upon their lids the figure of a hawk, a dog, or other animal. One of these boxes, they say, was originally placed at the feet of each mummy, and contained various little instruments and utensils, denoting the trade or employment of the embalmed person. But most of these have been carried away, as well as the little images above-mentioned, which the people of Saccara sell to Europeans at an easy rate; for the Turks have little curiosity, and esteem antiquities no farther than the value of the materials.

Amongst these repositories of human bodies, there is one called the Pit of the Birds, about thirty feet deep, consisting of many handsome apartments, being the sepulchre of birds and other animals worshipped by the ancient Egyptians, which they embalmed and wrapped up with the greatest care, depositing them in earthen vases covered over and stopped close with mortar. The form of these vases or urns is conical, and most of them contain an ibis (a bird much reverenced by the Egyptians, as we have already ob-

served) whereof the bill, bones, and the very feathers are preserved to admiration. Dogs and other animals have been found in larger vases, but at present they are rarely to be met with.

Perhaps it will not be disagreeable to the reader, nor seem quite foreign to our purpose if to this description of the mummy-pits we subjoin an account of the Egyptian manner of embalming human bodies, by which curious art several have been preserved entire through such a long succession of ages. For what we know on this subject we are chiefly indebted to Herodotus and Diodorus, who inform us, that among the ancient Egyptians the art of embalming, like other trades, was professed by particular persons; and when a corpse was brought to them, they showed the friends of the deceased several models or patterns made of wood, painted like an embalmed body, giving them also an account of the expence that would attend each manner of preparation; for it is to be observed, that they had three different ways of preparing a corpse for burial, one of which was very expensive, amounting to upwards of two hundred and fifty pounds sterling, the second to about a fourth part of that sum, and the charge of the third was very little.

These matters being previously agreed on, the embalmers took the body, and, having drawn out the brains through the nostrils with a crooked iron instrument, they injected into the vacancy a certain composition, which, at this day, upon opening the head of a mummy, appears of the consistence, colour, and smell of pitch, but something more fragrant. Then the scribe or secretary (as he was called) made a mark on the belly to determine the length of the incision, which was made

with a sharp stone; and the intestines being drawn out, except the heart and kidneys, were washed with palm-wine and aromatic odours. The belly was then filled with pounded myrrh, cassia, and other odoriferous drugs; and the incision being sewed up, the body was carefully anointed with oil of cedar for above thirty days, or else laid for more than twice that time in nitre *. Seventy days was the longest time, which being expired, the whole body was washed again, bound up in swathes of fine linen, and covered with gums, which the Egyptians used instead of glue. All this was done with such inimitable art, that the body was not in the least disfigured, the hair remained on the brows and eye-lids, and the person might even be known by his countenance. The corpse was then delivered to the relations, and, being enclosed in a coffin, was deposited in a sepulchre, or in such catacombs as we have already described. The Egyptians, however, did not always bury their dead immediately after they were embalmed, but sometimes kept them in their houses in magnificent apartments, having, by this means, the satisfaction of viewing the lineaments of their ancestors, who died some ages before them; and, according to Lucian, who pretends to have been

* Dr. Grew, in his Museum Regalis Societatis, is of opinion that the Egyptians boiled their dead bodies in a large cauldron, with a certain kind of liquid balsam. His reason is, that, in the mummies preserved in the collection of the Royal Society, the balm has penetrated not only the fleshy parts, but even the very bones, so that they are all black as if they had been burnt.—The Peruvians, it seems, had an effectual method of preserving the bodies of their deceased yncas or kings. Their main secret is supposed to be in burying them in snow, and afterwards applying a certain bitumen, mentioned by Acosta, which kept them as entire as if they had been still alive.

an eye-witness of what he relates, they often brought the embalmed body of a friend as a guest to their feasts and entertainments. Necessitous persons, we are told, have sometimes pawned the bodies of their parents or brothers for money, but Diodorus says it was reckoned the greatest reproach not to redeem them, and those who neglected to do it were themselves deprived of burial.

The method of embalming above described was the most costly of any; but those whose circumstances would not admit of such an expence, had recourse to a more ordinary preparation. Without cutting the body open, they injected into it, by a pipe, a quantity of oil of cedar, laid it in nitre, and, after a certain term, they let out the oil by the fundament, which brought away with it the paunch and entrails. The third way of preserving the corpse was only to cleanse the belly by injected lotions, and salt the body for seventy days; and this was practised by the meaner sort of people.

The pyramids and catacombs are perhaps the most remarkable curiosities of Egypt, and therefore we have been the more particular in describing them; but there are several other noble remains of antiquity, which must not be passed over in silence. Near the southern part of the lake of Mœris, was situated the celebrated labyrinth, a structure which, in the judgment of Herodotus, surpassed the report of fame, and was more wonderful than the pyramids themselves. This magnificent pile, the same historian informs us, was erected by twelve Egyptian kings, at a time when the country was divided into so many different kingdoms, and, properly speaking, consisted of

twelve palaces, where the princes and magistracy of the whole nation used to assemble to feast and sacrifice, and to deliberate about matters of state and religion. It seems also to have been designed as a pantheon, or universal temple of all the Egyptian deities, which were separately worshipped in the provinces.

This vast edifice had twelve halls, which were vaulted, and had an equal number of doors opposite to each other, six opening to the north, and six to the south. The whole number of rooms in it was three thousand, one half of them above-ground, and as many below; and the passages throughout the building were contrived to meet and cross each other with so much intricacy, that a stranger was presently bewildered amongst them, and unable to find his way out without the assistance of a guide. Herodotus tells us that he viewed all the upper rooms of this labyrinth, but was not permitted to see the subterraneous apartments, because they contained the sepulchres of the kings who built it, and of the sacred crocodiles, which animal was the peculiar deity of Arsinoe, a neighbouring city *. This huge fabric is said to have consisted entirely of stone, without any timber, being supported by a vast number of marble pillars, and the whole adorned with excellent sculptures.

* The superstition of the ancient Egyptians is well known, who extravagantly worshipped the crocodile, the bull, the wolf, the dog, the cat, the baboon, the hawk, the ibis, and many other animals; almost every province and city having their peculiar deities. These animals were placed in their temples, maintained with great care and expence, and, after their death, were embalmed, and deposited in tombs assigned them by the public.

So great was the strength of this surprising structure, that Pliny says it was remaining in his days, after having stood three thousand six hundred years; and even at present one may find sufficient tokens of its ancient grandeur. At a place called Cardon, which is undoubtedly the spot where the labyrinth was erected, there are several heaps of ruins covered with sand, and abundance of stones scattered up and down; and proceeding farther, we come to the remains of some ancient buildings, the largest of which, called the Castle of Caroon, is about a hundred and sixty feet long, and eighty broad, supposed to have been the square pyramid which Strabo speaks of at the end of the labyrinth.

Here are some remnants of large marble pillars, which supported a very rustic portico almost entirely destroyed; but through it our author passed into a fine spacious hall, and beyond it three others successively, which are roofed with large tables of marble admirably joined together, and reaching across from one wall to the other. From these halls there are openings into other rooms upon a level with them, and from thence there are staircases to ascend into those that were above, and to descend into those below, but most of the passages, as is reasonable to suppose, are now choked up with sand and rubbish. What remains of this structure is about thirty-four feet high, and there is the appearance of a cornice running along it, though undoubtedly it was higher formerly. It seems to have been a fourth part of the inner building, which probably had four fronts, with twelve halls answering to them; and this is almost evident from the ruins spread all round it to a considerable distance.

At a small distance to the northward of Cairo is the village of Baalbait, seated on an artificial eminence, on which is supposed to have stood the city of Busiris, once celebrated for its temple dedicated to Isis; there being the remains of a temple, the materials of which seem to have been more costly than any in Egypt. From these ruins the temple appears to have been about a hundred feet broad, and two hundred long. The outside of this edifice was of grey granite, and the inside, and columns of red, the capitals being adorned with the head of Isis. There seem to have been four rows of twelve columns each in the temple; but what is most admired, is the exquisite beauty of the sculpture with which it is adorned; for, though the figures are only about four feet high, there appears something so fine and animated in the mien of the deities and priests, that exceeds imagination. But the natives who are entirely void of taste, are constantly employed in destroying these fragments of antiquity, and frequently cut the columns, in order to make them into mill-stones.

Near Cairo are also the remains of the ancient city of Heliopolis, the Or of the Scriptures, a city famous for the worship of the Sun. At the entrance on the west, are the ruins of a sphinx of bright yellow marble; and, almost opposite to the gate, is an obelisk sixty-seven feet and a half high. The priests of this city were once the most famous of all Egypt for their skill in philosophy and astronomy. At a little distance from the above obelisk is the village of Matarea, where it is said the holy family lay for some time concealed, when they came into Egypt; and they add, that, being in danger from some wicked people, a tree opened,

and became hollow, to receive and shelter them. The Copts pretend to show the very tree, which is hollow, and of the sort called Pharaoh's fig; they even take away pieces of it as sacred relicks, though the Roman Catholics say that the tree fell down, and was carried away by the monks of Jerusalem.

On the side of a mountain farther to the south are some remarkable antiquities. After an ascent, which takes up two hours, the traveller arrives at a gate leading into a great saloon, supported by hexagonal pillars, cut out of a solid rock. The saloon was adorned with paintings, which are still to be distinguished, and the gold that was employed, glitters on all sides. There are openings to other apartments, but they are filled up with rubbish; and also an apartment above the saloon, which may be entered by climbing up on the out side; but it is smaller than the first; and, though it has no pillars, has been painted like the other.

Farther to the south is Gaua-Kiebra, where are still to be seen the remains of a beautiful portico of a temple, consisting of eighteen pillars, in three rows; these have a singular kind of capital, and their shafts are covered with hieroglyphics, executed in a masterly manner. This temple seems to have been extremely magnificent, not only from the noble appearance of the portico, but from the vast stones, of which the walls were formed: One of these Dr. Pococke found to be twenty-one feet long, eight broad, and four deep; and another thirty feet in length, and five in breadth.

Still farther up the Nile was the city of Tentyra where the inhabitants paid their adoration to Venus and Isis; and, from the many heaps of ruins still

be seen, the city appears to have been of great ex-
nt. The principal remains of the ancient buildings
e two gates and four temples. The great temple ap-
ears to be that of Isis, which seems in a manner
ntire. The pillars are adorned with large capi-
ls of the head of Isis, each capital having four
ces, one on each side; and over them are com-
rtments in bass relief, finely executed, and in a
ble taste. At the end of the grand room are
ur stories of hieroglyphics, in seven compart-
ents; each of which has two or three human
gures, but some of them are defaced. There are
ewise four stories of hieroglyphics on the out-
le; and before the ground was raised, there
ere probably five both within and without. At
e south end are five colossal figures; and two
ore beautiful than the rest stand at each corner.

The ruins of the celebrated city of Thebes are
e most considerable in Egypt; and are generally
own by the name of the antiquities of Luxerine
d Carnack, two villages seated in the midst of
ese ruins. The great city of Thebes extended
both sides the Nile, and was built, according
some authors, by Osiris, and according to
hers by Busiris II. who adorned it with magnifi-
nt buildings, and is said to have rendered it the
ost opulent city upon earth. It was first called
iospolis, or the city of Jupiter, but afterwards
tained the name of Thebes. According to Di-
orus Siculus, both this king and many of his
ccessors improved the city with presents of gold,
ver, ivory, and a multitude of colossal statues;
d no other city was so adorned with obelisks of
e entire stone. It had four temples of amazing
e and beauty; the most ancient of which was
rteen stadia in circumference, forty-five cubits in

height, and the walls twenty-four feet in thickness. The buildings, he adds, have remained till modern times, but the gold, silver, ivory, and precious stones, were carried away by the Persians when Cambyses set fire to the temples of Egypt. The Persians having transferred this opulence to Asia, and carrying artists with them from Egypt, erected the magnificent palaces of Persepolis, Susa, and others in Media. The riches of Egypt were then so great, that it is said, after plundering and burning the city, there were taken from the ruins above three hundred talents of gold, and two thousand three hundred talents of silver. Of the four remarkable temples mentioned by Diodorus, Dr. Pococke imagines, that which he viewed was the same which that ancient historian mentions as of a most extraordinary size, since its ruins extend nearly half a mile. This temple has eight grand entrances; to three of which were avenues of a great length, between sphinxes; two of these avenues having sixty of these statues on each side. Having passed between these, at one of the entrances our author came to four grand gates, at a considerable distance behind each other, in a direct line with the temple; they are about thirty-five feet deep, a hundred and fifty in length, and, before the ground was raised, must have been from fifty to sixty feet high. These gates are of a pyramidical form: the first is of red granite, finely polished, and beautifully adorned on the outside with hieroglyphics, in four series, from the top to the bottom, and three on the inside; in each of which are the figures of two men, finely executed, and larger than life.

Farther on each side are colossal figures, about fifteen feet high, with hieroglyphics under them; and, in this last manner, the other gates are adorn-

ed, but without the compartments. On each side of these gates, there also seem to have been colossal statues. The grand entrance to the west, which may be termed either a gate, or a front to the great court before the temple, is extremely noble, though it has the greatest plainness and simplicity, and nearly resembles what among us is termed the rustic; it is forty feet broad, and the bottom is a solid wall of that thickness. In the front are two stories of small windows, but the upper story is so ruined, that, at a distance, it has, in many parts, the appearance of battlements. Within this gate is a large, open court, which has a terrace eighty feet broad, and six feet above the ground, as it is now raised; to which there were probably steps to ascend from a colonade on each side of this anti-temple. The pillars of these colonades have square capitals, and on each side of the middle walk to the inner part of the temple, was a grand colonade of pillars above forty feet high, and eight feet in diameter, with large capitals like vases, wrought with figures in lines. At the farther end of this colonade, are two mutilated colossal statues of red granite, with the heads broken off.

Notwithstanding the wall of the inner temple is greatly ruined, Dr. Pococke asserts that it has more grandeur and magnificence than any other building he ever saw. The door is very lofty, and yet in a just proportion; and the walls on each side are adorned with hieroglyphics and figures of men, in six compartments, above nine feet high, and twelve wide; every compartment having the figures of three men. On entering the inner temple there appear sixteen rows of pillars one way, and eighteen another: those in the two middle rows are eleven feet in diameter, and the

others eight, with capitals of square stone. The temple was higher above the middle rows than in the other parts, and had a kind of windows over the space between every two pillars, with twelve lattices of stone in each window. Every part of the temple, both within and without, is covered with hieroglyphics; and, on the outside to the north, are the representations of battles in relievo, with horses and chariots, one of which is drawn by stags. On each side of the entrance into the east end of the temple, is an obelisk sixty-three feet four inches in height, and six feet square. Farther to the east are two obelisks seventy-three feet high, and seven feet six inches square; but one of them is fallen down. These obelisks are all of red granite, covered with hieroglyphics.

In that part of Thebes on the west side of the river is a village named Gournou, where there is a very singular street; for the rocky ground, rising on each side of it, about ten feet high, has, on each hand, a row of rooms, some supported by pillars, without the least sign of raised buildings. Hence Dr. Pococke imagines that, in the earliest times, these caverns might serve as houses, and were probably the first invention after that of tents, when they might be contrived as a better shelter from the weather, and the coldness of the nights: but it may at least, with equal probability be supposed that the use of caverns preceded that of tents, and that the latter were chosen only by those who for the sake of pasture, removed with their flocks, from place to place.

Passing through some other valleys where the mountains rise to a great height, our traveller came to a round opening like an amphitheatre; and ascending it by a narrow steep passage, arrived at

the sepulchres of the kings of Thebes, which are formed in the rocks. Here are long galleries, or passages, formed under the mountains, out of a close white freestone, that cuts like chalk, and is as smooth as the finest stucco work. There are generally four or five of these galleries one within another, from thirty to fifty feet long, and from ten to fifteen feet high, leading to a spacious room, in which is the king's coffin, with his figure cut in relief, or painted upon it, at full length. Both the cielings and sides of the rooms are carved with hieroglyphics of beasts and birds; some of them painted, and almost as fresh as if they were but just finished, though they are undoubtedly above two thousand years old. One of these sepulchres, in particular, is most beautifully adorned with hieroglyphics, cut in the stone, and painted. The entrance, which has a descent, is, for thirteen feet, open at the top; then, for eight feet more, the cieling inclines, answering to the descent under it. The hieroglyphics, carved on each side, are first in a kind of compartments next to the cieling, in the manner of a frieze. Below them are carved figures, representing mummies; and under these are hieroglyphics divided by lines into different columns. In the middle of the cieling are the figures of men, with stars on each side. The king's tomb is of one stone of red granite, seven feet nine inches high, eleven feet eight inches long, and above six broad, the cover being made to shut into it. The figure of the king is cut in mezzo relievo, with an hieroglyphic inscription; and the room is adorned with different columns of hieroglyphics. In a large room belonging to another of the grottoes, is the statue of a man with a sceptre in his hand, and on the cieling is painted a

large figure of a man, holding a particular kind of sceptre, his wings covering his whole body, and hanging lower than his feet. On each side of the entrance are four men of gigantic stature cut in stone, with the heads of hawks and other animals.

There are likewise two very extensive apartments on the south side of these mountains: in one of them is a descent of ten steps to a spacious area cut in the rock, which leads to a room supported by square pillars, also cut out of the solid rock; and beyond it is a long room supported by pillars on each side. The apartments are adorned with hieroglyphics, but they are in some places black, and scaled, as if damaged by fire.

To the south-east are the ruins of a large temple; and, at a distance from it, the remains of a pyramidal gate, and of a colossal statue broke off about the middle. The part fallen down is twenty-one feet broad at the shoulders, from the top of the head to the bottom of the neck is eleven feet, and the ear is three feet in length. In the first court of the temple, are two rows of square pillars, on each side of which is a statue, with the head broken off. In a second court are the remains of two colossal statues sitting; they are of black granite, and the head of one of them, which lies on the ground, is three feet five inches long. A great number of pillars belonging to the temple are still standing, and many others are destroyed. There are two sorts of pillars in this edifice, one more beautiful than the other. At a distance their thickness and solidity give them a noble appearance; and, on approaching them, the eye is entertained with the hieroglyphics, and, on a near approach, their colours have a fine effect. This

sort of painting has neither shade nor degradation: the figures are encrusted with it like painting in enamel; and according to Mr. Norden, it surpasses, in strength, every thing he had seen of the kind, being superior in beauty to mosaic work, with the advantage of being more durable. "It is surprising to see," says he, "how the gold, ultramarine, and other colours, have preserved their lustre to the present age."

Fronting the Nile at a considerable distance from the temple, are the colossal statues of Memnon, consisting of a man and woman in a sitting posture, both of them fifty feet high from the bases of the pedestals to the top of their heads. They are seated upon stones fifteen feet high, and as many in breadth; but the back part of each stone is higher than the fore part by a foot and a half; and they are placed on plain pedestals two feet high. The statue to the north has been broken off in the middle, and been built up with five tiers of stone, but the other is of one single stone: the feet have the toes broken off, and the features are mouldered away by time. The sides of their seats are covered with hieroglyphics. On the pedestal of the statue, which has been broken, is a Greek epigram; and on their insteps and legs are several Greek and Latin inscriptions; some of these epigrams in honour of Memnon, but most of them are the testimonies of those who have heard his sound: one of them being the famous statue of Memnon, which, at the first and second hour, it is pretended, uttered a sound, occasioned by the rays of the sun striking upon it. At a small distance are the ruins of several other statues, particularly one of yellow granite, almost entire, and

*The Temple & Statue of Memnon*

twelve feet in length from the thigh to the top of the head.

At Luxerein, which as hath been observed, is also a part of the ancient Thebes, are the remains of a large and magnificent temple, called by Diodorus the sepulchre of Osymandus: it is seated on the east side of the river to the south of the antiquities just described. The objects which first excite attention on approaching it, are two obelisks, probably the finest in the world, being at present sixty feet high, and might have been seventy or eighty, the ground being much raised. The hieroglyphics extend in three columns down each side, and the granite has perfectly retained its polish, which is as fine as can be imagined. On the top of each side, a person sits on a throne, and another offers him something on his knees. At a small distance is a pyramidal gate two hundred feet long, and at present fifty-four above the ground, with a colossal statue on each side, which rises thirteen feet and a half above the surface of the earth, though the shoulders are only three feet and a half above the ground. In the front of the pyramidal gate are windows and sculpture, particularly a person seated on a throne holding out one hand, in which he has a staff or sceptre, surrounded by others in suppliant postures. On the other side is represented a man in a car, galloping and shooting with a bow, and followed by many chariots. Within the gate is a court almost filled with cottages, with some pillars that once formed part of a colonade, beyond which was another gate now in ruins, that opened into another court, in the middle of which was a large and beautiful altar, and the history of the king cut all round in the walls. The pillars in

this court are forty feet high, but the work in the capitals, instead of being in relief, is only cut out in lines. The walls of the rooms are adorned with sculpture, among which, a deity is represented carried in a kind of boat, by eighteen men, preceded and followed by a person holding a particular kind of ensign. Here are also a person sitting and another kneeling to him, with instruments of music; a man leading four bulls with a string, and some men kneeling with the heads of hawks.

There are many other ruins farther up the Nile; particularly at Esne are the remains of a magnificent temple closed on three sides, with twenty-four pillars in the front, that seem well preserved, and, as well as the temple itself, are covered with hieroglyphics. It is remarkable that, among all the pillars of this temple, there is not one capital that resembles another; for though the proportions are the same, the ornaments are different. About three miles from this temple is another which Dr. Pococke supposes to be the temple of Pallas at Latopolis, where both that goddess and the fish Lotus were worshipped. There are here also several different kinds of capitals, some of which resemble the Corinthian, but have a very flat relief. This structure is likewise adorned with hieroglyphics, and the ceiling, which is still standing, is embellished with a variety of animals, painted in very beautiful cololours; and among them is a man sitting in a kind of boat, with a circle round him.

At Etfou, where once stood the city of Apollinopolis is a noble temple, which was dedicated to Apollo; and a grand pyramidal gate, which the Turks have converted into a citadel.

At the village of Comombo, still farther to the south, are some beautiful ruins, which it is impossible for a curious traveller to view without great satisfaction. A noble building rests upon twenty-three well wrought pillars, adorned with hieroglyphics. The stones that cover the top, are of a prodigious size, and the pillars above twenty-four feet in circumference; but part of the building is covered with earth, and three quarters of the pillars are under ground.

Farther up the Nile is the island Elephantine, in which was a small city of the same name. In the midst of the island are the remains of a magnificent gate of red granite finely adorned with hieroglyphics; and among other buildings is an ancient edifice still called the temple of the serpent Cnuphis, though covered with earth on the top, as well as on the sides.

Farther to the south is the island of Philoe, which is high, but of small extent. Diodorus seems to insinuate, that none but the priests were permitted to land, on account of the sacredness of the place; accordingly the whole island appears to have been walled round, somewhat in the manner of a modern fortification. The temple of the Hawk is built with free-stone on the west side of the island; and in the court of the temple, which is of great length, is a row of pillars on each side, adorned with a variety of capitals. Beyond this is an inner court, in which are beautiful pillars, with capitals wrought in bass relief, with some thing like leaves and branches, above which the head of Isis appears on each of the four sides.

On the outside of this inner court, are large colossal figures, on the south side of a great py-

ramidal gate. At the entrance to the east is on each side an obelisk of red granite, and near each of them a lion. Between the west side of the grand area and the water, is only a narrow terrace, with doors to it from the portico; and the whole ends at the water to the south with a parapet wall, at which are two obelisks raised on their pedestals. Here the island rises twenty or thirty feet above the water, affording a prospect to rocks of granite, where, the Nile turning, those rocks terminate the view in a most agreeable and romantic manner. To the east of this structure is the temple of Isis, which is an oblong square building, open on all sides; where the capitals of the pillars, which have some resemblance to those of the Corinthian order, may be reckoned among the most beautiful in Egypt.

Alexandria was once equal to the greatest cities in the world, not only for its noble walls, but for the number of its magnificent edifices, and the opulence of its inhabitants. Its present condition, however, is very despicable, being now so far ruined, that the rubbish in many places overtops the houses. The famous tower of Pharos has long since been demolished, and a castle called *Furilton*, built in its place. The causeway which joined the island to the continent is broken down, and its place supplied by a stone bridge of several arches. Some parts of the old walls, however, are still standing and present us with a master-piece of ancient masonry. They are flanked with large towers, about two hundred paces distant from each other, with small ones in the middle. In the lower part of each of the towers is a large square hall, whose roof is supported by thick columns of

Thebaic marble; and above this are several apartments, surmounted by platforms of more than twenty paces square. The ancient cisterns or reservoirs, which were built under the whole town to receive the waters of the Nile, are almost entire, and still serve for the same purpose, after a lapse of more than two thousand years.

Near the coast, and toward the eastern extremity of the crescent formed by the new port, appear two obelisks, which by general consent are denominated *Cleopatra's Needles*, though it does not appear that they really owe their existence to that queen of Egypt. One of these obeliks is still upright upon its base; the other is thrown down, and almost buried in the sand. They are of Thebaic stone, covered with hieroglyphics, and measure about sixty feet high by seven feet square at the base.

At a small distance from these obelisks stood the palace of the kings of Egyyt, and some superb vestiges of its ancient grandeur still remain. Here is, in fact, an inexhaustible quarry of granite and marble, which the present Alexandrians dishonour, by employing them with common materials in the construction of their houses. Excavations of little depth made in this spot, are said to afford medals and engraved stones more abundantly than any other part of Alexandria.

Toward the gate of Rosetta, are five columns of marble, on the spot formerly occupied by the porticoes of the Gymnasium. The rest of the colonade, the design of which was discoverable a hundred years ago by Maillet, has since been destroyed by the barbarism of the Turks.

But what most engages the attention of travel-

lers, is the pillar of Pompey, as it is generally called, situated about a quarter of a league from the southern gate. It is composed of red granite. The capital is Corinthian, ornamented with palm leaves, and not indented. The shaft and the upper member of the base are of one piece, ninety feet long, and nine in diameter. The base, which is a square block of marble sixty feet in circumference, rests on two layers of stone, bound together with lead. The whole column is a hundred and fourteen feet high, perfectly well polished, and only a little shivered on the eastern side.

Nothing can equal the majesty of this monument; seen from a distance, it overtops the town and serves as a signal for vessels; and on a nearer approach, it produces an astonishment mingled with awe. One can never be tired with admiring the beauty of the capital, the length of the shaft, and the extraordinary simplicity of the pedestal; although the latter has been rather damaged by the instruments of travellers who were anxious to possess a relick of this antiquity; and one of the volutes of the column was immaturely brought down in the year 1781, by a prank of some English Captains, which is thus related by Mr. Irwin:

"These jolly sons of Neptune had been pushing about the can on board one of the ships in the harbour, until a strange freak entered into one of their brains. The eccentricity of the thought occasioned it immediately to be adopted, and its apparent impossibility was but a spur for the putting it into execution. The boat was ordered, and with proper implements for the attempt, these enterprising heroes pushed ashore, to drink a

bowl of punch on the top of Pompey's pillar! At the spot they arrived, and many contrivances were proposed to accomplish the desired point. But their labour was vain, and they began to despair of success, when the genius who struck out the frolic happily suggested the means of performing it. A man was dispatched to the city for a paper kite. The inhabitants were by this time apprised of what was going forward, and flocked in crowds to be witnesses of the address and boldness of the English. The governor of Alexandria was told that these seamen were about to pull down Pompey's pillar. But whether he gave them credit for their respect to the Roman warrior, or to the Turkish government, he left them to themselves, and politely answered, that the English were too great patriots to injure the remains of Pompey. He knew little, however, of the disposition of the people who were engaged in this undertaking, for had the Turkish empire rose in opposition, it would not perhaps at that moment have deterred them. The kite was brought, and flown so directly over the pillar, that when it fell on the other side, the string lodged upon the capital. The chief obstacle was now overcome. A two-inch rope was tied to one end of the string, and drawn over the pillar by the end to which the kite was affixed. By this rope one of the seamen ascended to the top; and in less than an hour, a kind of shrowd was constructed, by which the whole company went up, and drank their punch amid the shouts of the astonished multitude. To the eye below, the capital of the pillar does not appear capable of holding more than one man upon it; but our seamen found it could contain no less than eight

persons very conveniently. It is astonishing that no accident befel these madcaps, in a situation so elevated, that would have turned a landman giddy in his sober senses. The only detriment which the pillar received was the loss of the volute before-mentioned; which came down with a thundering sound, and was carried to England by one of the captains, as a present to a lady who commissioned him for a piece of the pillar. The discovery which they made amply compensated for this mischief: as without their evidence, the world would not have known at this hour, that there was originally a statue on this pillar, one foot and ancle of which are still remaining. The statue must have been of a gigantic size, to have appeared of a man's proportion at so great an height."

There are circumstances in this story which might give it an air of fiction, were it not demonstrated beyond all doubt. Besides the testimonies of many eye-witnesses, the adventurers themselves have left a token of the fact by the initials of their names, which are very legible in black paint, just beneath the capital.

Learned men and travellers have made many fruitless attempts to discover in honour of what prince this stately pillar was erected; for notwithstanding its common appellation, it could not have been raised to the memory of Pompey, as neither Strabo, nor Diodorus Siculus have spoken of it. Abulfeda in his "description of Egypt," calls it the *pillar of Severus*. And history informs us, that this emperor visited the city of Alexandria; that he granted a senate to its inhabitants, who until that time, under the subjection of a single Roman magistrate, had lived

without any national council; and that he changed several laws in their favour.—This column, therefore, M. Savary concludes to have been erected by the inhabitants as a mark of their gratitude to Severus. And in a Greek inscription now half effaced, but visible on the west side when the sun shines upon it, he supposes the name of Severus to have been preserved. He further observes that this was not the only monument erected to that emperor, by the gratitude of the Alexandrians, for there is still in the midst of the ruins of Antinoe, a magnificent pillar, the inscription on which is still remaining, and proves that it was dedicated to Alexander Severus. It has, however, been lately asserted that the above mentioned inscription on what is vulgarly called Pompey's pillar has been decyphered; and proves that the column was erected in honour of Diocletian, by the then prefect of Egypt.

On the south-west side of the city are situated the catacombs, or ancient burial places of Alexandria; and although they cannot be compared to those of the ancient Memphis, which the Arabs will not permit to be visited, in order to make the better market of their mummies, yet it is probable, as the method of embalming was the same, that the form of these catacombs only differ in their proportions. Baron de Tott observes, that "nature not having furnished this part of Egypt with a ridge of rocks like that which runs parallel with the Nile above Delta, the ancient inhabitants of Alexandria could only have an imitation, by digging into a bed of solid rock; and by this means they formed *Necropolis*, or the "city of the dead."—The excavation is from thirty to forty feet wide, and two hundred long;

and is terminated by gentle declivities at each end. The two sides, cut perpendicularly, contain several openings, about ten or twelve feet in width and height, which form, by their different branches, subterraneous streets. One of these, which curiosity has disencumbered, from the sand and rubbish that render the entrance of others impassable, contains no mummies, but only the places they occupied. The order in which they were ranged is still to be seen. Niches, about twenty inches square, sunk six feet horizontally, narrowed at the bottom, and separated from each other by partitions in the rock, divide into checkers the two walls of this subterranean vault. From this disposition it is natural to suppose, that each mummy was introduced with the feet foremost into the cell intended for its reception; and that new streets were opened in proportion as these dead inhabitants of Necropolis increased."

In the castle of Cairo they pretend to show the very prison in which Joseph was confined; and there is a well called Joseph's, which travellers represent as a great curiosity. It takes its name, not from the patriarch Joseph, as is generally imagined, but from a grand vizier who had the direction of the work about seven hundred years ago. It is dug through the natural rock, the stone being soft; and has a stair-case that goes winding round it, above six feet wide, the rock being at least half a yard thick between this passage and the well, which prevents people from falling. Holes are cut at proper distances to let in the light, and the descent is very easy, each step being about six inches high, and five feet broad; but the place is so clogged with dirt, that the steps are scarce perceivable. Thus we descend to the bottom of the

first part of the well, which is a hundred and fifty feet deep, when, turning a little to the right, we enter a chamber cut out of the rock, where oxen, by means of wheels, raise the water from the lower part of the well to the bottom of the upper part, from whence it is drawn to the top by other oxen above. This lower well is not so wide as the former, and the descent is difficult and dangerous, the stairs being narrow, wet, and dirty, and no partition between them and the well. It is a hundred and twenty feet deep, which added to the other number make two hundred and seventy; but travellers differ in their computations, some making the number much greater. This well is never empty, being probably lower than the bed of the Nile; but the water is brackish, and therefore not fit to drink; however it serves for common uses, and is distributed in pipes to different parts of the castle.

A supply of better water is brought to the castle from the river itself, by an aqueduct which makes a grand appearance, though uniformity has not been observed in building it, the arches and piers being of different dimensions. At the north end of Old Cairo is a magnificent hexagonal building, said to have been erected by one of the Mameluke kings of Egypt. On the outside of it there is an easy ascent for the oxen to go up, which turn the wheels whereby the water is raised to the top of it from the reservoirs below, into which it is let from the Nile by a channel cut for that purpose. Five oxen, and the same number of wheels, are employed in drawing up the water, which runs into a large bason, and from thence into the aqueduct that conveys it to the castle. The arches of this aqueduct are about three hundred, Dr.

Pococke says two hundred and eighty-nine, but others vary from these computations.

At a little distance from the castle is a kind of suburb called Caraffa, where there is a spacious burying-ground, and some magnificent tombs covered with cupolas, supposed to be the monuments of Egyptian kings, or of the caliphs, the relations of Mahomet, who conquered Egypt. The people have a great veneration for these tombs, and will not permit either Jews or Christians to pass by them without alighting from their asses, as a sign of respect. They were formerly endowed with large revenues for the entertainment of pilgrims that came to visit them; but the greater part of that income has been taken away by the avarice of the bashas, and most of the edifices are gone to decay, and lie quite neglected. Caraffa was anciently a sort of university for the study of law and divinity, and had a vast number of colleges and convents; but great part of it is now in ruins.

The Jews have a synagogue at Cairo, remarkable for its antiquity, it being built, according to their account, about sixteen hundred years ago; and they have a tradition that the spot where they usually read the law was honoured with the presence of the prophet Jeremiah. They have abundance of ancient manuscripts, and among the rest they pretend to have one of their law written by the hand of Ezra; who having, as they say, omitted the name of God out of reverence wherever it should have been written, found the vacancies miraculously filled up the day after it was finished. This manuscript they esteem so sacred that nobody is permitted to touch it, and it is kept in a niche nine

or ten feet from the ground, before which a c
tain is drawn, and lamps are continually burnin

In the vicinity of Aboukir the ground is strew
with ruins, which offer many interesting obje
to the view of a contemplative traveller; a
from what lies on the surface it may be reasona
supposed that more valuable relics might
discovered, if permission could be obtained to
there; but researches of this nature are ab
lutely forbidden among an ignorant and sup
stitious people, who have no idea of any ot
riches than gold, and who cannot conceive that
inspection or acquirement of monuments of art sho
induce foreigners to travel over their country.

M. Sonnini tells us, that he saw several grai
columns at this place, which were extremely be
tiful, but fallen to the ground; their shafts w
fluted, and of one piece, although of astonish
magnitude; the capitals were of the finest wo
manship. A Jew drogueman told our trave
that he remembered one part of these colun
standing, and also a large arch which formed the
trance to a subterranean cavern; but that the
tives had destroyed it for the sake of the ston
which they employed in their buildings, or
repairing the dikes, erected to confine the s
There still remained the openings to some s
terraneous avenues, built of brick, and in tolera
pregervation; but they were all choked up w
rubbish. These majestic ruins are, by
inhabitants of Aboukir, denominated the " C
of Pharaoh."

On the sea shore are observable the foun
tions of a very large regular building, in
midst of which is a cavern leading to the s
where ruins may be seen at a great distan

a circumstance which proves that here, as in many other places, the sea has made considerable encroachments. Blocks of granite of different forms lie in heaps by the side of these remains of antiquity; and in the midst of them is a colossal statue of a woman fluted all its length, but it is thrown down and somewhat mutilated. By the side of this statue there is a large mutilated figure of a sphinx, the pedestal of which is encircled with hieroglyphics, almost entirely effaced.

"Such," says M. Sonnini, "are the remains of a celebrated city founded by the Greeks, and embellished with the most sublime and beautiful works of art. A magnificent temple, of which the granite columns, now thrown down, probably formed a part, had been consecrated to Serapis. Foreigners resorted thither in crowds, attracted rather by the pleasures they could enjoy in the city, than to offer sacrifice to the god. The attractions of the situation, the beauty of the climate, the delicacies of the table, and the general affluence of the people, all concurred to render Canopus the most enchanting retreat; but dissipation had there attained its highest pitch; licentiousness knew no bounds and in a word, this could no longer be the retreat of a sage.—Excess of luxury and a general depravity of manners, are the certain precursors of the approaching fall of states, and of the degeneracy of the people. Canopus is no more. The descendants of its former inhabitants are mere barbarians; the Nile now denies its refreshing moisture to a depopulated soil; the plains are become parched deserts; and no part of the monuments of its magnificence, have retained either their place or their position; all is overthrown or destroyed; and the once proud and delightful

Canopus exists no longer, but in the memory of a few."

Panopolis and Chemmis are the same city under two names, the one of which is Greek, the other Egyptian; and the Egyptian name still subsists under that of *Eclmimm*. Some remains of the ancient city are yet to be seen to the eastward, and near the walls that surround the modern town. One of the most striking objects is an enormous mass of white calcareous stone, bearing on one of its sides a Greek inscription, but part of the stone is concealed in the ground, and the inscription is almost entirely effaced. Underneath the uncovered part of this large block, the earth is excavated, and affords a view of the paintings with which the under surface is covered. In the middle is distinguishable a sphere with the twelve signs of the zodiac; the colour which has best withstood the corroding tooth of time is an azure blue; the other colours are scarcely visible.

By the side of this block is to be seen another, but of a smaller size, and almost entirely covered with earth. A little farther, the ruins of an ancient edifice are to be observed, and several large stones, similar to those above mentioned exhibit the remains of paintings and hieroglyphics; but no part of the general plan is now distinguishable.

An ancient mosque in this neighbourhood is still regarded as an object of veneration by the Coptic Christians, who assert that it has been built upwards of a thousand years. In this, however, they are certainly mistaken; for although the edifice is much dilapidated in every part, its construction sufficiently demonstrates that it is not the workmanship of a period when buildings possessed greater solidity. This temple is very

spacious, and has several entrances; its periphery is lighted by a line of contiguous windows. The interior is a large and naked enclosure; but the small granite pillars by which it is supported, and which were taken from among the ruins of Panopolis, excite admiration.

At some distance below the village of Iagnouss, a considerable space of ground is covered with ruins which are supposed to indicate the site of the ancient city of Taua. Columns of granite may here be seen lying prostrate on the earth, and some magnificent vaults of brick still remain in tolerable preservation. The barbarous inhabitants of the neighbourhood are continually loading their camels with the large bricks which they obtain by demolishing these vaults; and in pursuing this plan of devastation, they daily find medals, statues, and other fragments of antiquity; but slaves to an absurd fanaticism, they instantly break in pieces all the statues, because their law prohibits them from the possession of all sorts of pictures and images. At this place M. Sonnini purchased the following articles.—1st. A porcelain idol, representing a cat sitting, three inches two lines in height; it was covered with a greenish enamel; but the two hind legs were broken off. 2d. A bust of a woman, whose head dress had been perforated, that it might be worn as an amulet; this was four inches three lines in height; of a reddish colour, and without any enamel. 3d. A head of a woman unknown, of the same reddish earth as the preceding. 4th. Two small marble figures of children strangely muffled up, and resting on a dolphin; this was about five inches in height, and appeared to have been originally placed upon a fountain. 5th. Osiris holding a whip and the Egyptian scep-

tre, this idol was two inches and a half in height, made of porcelain, and covered with a greenish grey enamel. 6th. The head of a woman unknown, in white stone; height nine inches. 7th. A black marble head designed to represent Vespasian, and probably sculptured at the time when he was proclaimed emperor by the army in Egypt; his crown is decorated with flowers of the lotus. 8th. A head of a woman whose character is not sufficiently expressed, but which was probably intended to represent Arsinoe, the wife of Ptolemy Philadelphus; this head is of white marble, and about four inches in height.—M. Sonnini observes, that the above mentioned ruins in the environs of Iagnouss do not appear to have been noticed by any preceding traveller; but their situation may be easily recognised by the tomb of a Turkish saint, which is built directly facing them on the east bank of the Nile.

At Kous, which is supposed to occupy the scite of the ancient city of Apollinis parva, there is still to be seen the front, half buried, of a small temple dedicated to the sun. It is thirty feet in breadth, and built in the form of a rectangular parallelogram; but the greater part of it is concealed by sand and rubbish, and the remainder is not more than ten or twelve feet above ground. Figures and hieroglyphics appear to have been cut upon the walls; but they are sadly defaced by the ravages of time, and still more by the superstitious barbarism of the natives.

Near the village of Sennehour-Medini are some considerable remains of antiquity, the whole surface of the ground being completely covered with ruins. But there is nothing entire, except some vaults of brick, prostrate columns, and capitals of

granite and marble. On the other side of the river, half a league below Schlimè our author discovered very considerable vestiges of an ancient city: but as it was almost dark, and as the neighbourhood was infested by a great number of robbers, he was compelled to relinquish the examination of these monuments of antiquity. At Salhe el Adsjar, however, he purchased the following collection of antique fragments.—A small figure in bronze, three inches high. An Isis in plaster, three inches ten lines in height. A hawk in bronze, height ten lines. A head of Isis in terra cotta; its height two inches, and its breadth at the base eighteen lines. A fine bust of Isis with the crescent and *modius* in white stone, two feet in height. Two figures, which appear to be tragic masks, like those which are to be seen on the corners of sarcophagi: the first is of basaltes and eleven inches high, the second is nine inches, and composed of mortar. A porcelain figure, two inches nine lines in height, covered with an enamel of aqua marina. Another of bronze probably an Isis, three inches high. A head in bronze representing Isis: this, however, is not of Egyptian workmanship, but of the times when the Greeks were masters of Egypt. A figure of a beetle, an insect held sacred by the Egyptians: this is of black stone, eighteeen inches long and thirteen broad. A porcelain cynocephalus, covered with green enamel: this was two inches high, and had been perforated, to be worn as an amulet. Lastly, a grotesque idol in porcelain about two inches four lines high, and covered with a purple red enamel.

In the neighbourhood of Siwa, Mr. Browne was conducted to a small building of undoubted antiquity, which the natives distinguished by the name

of "Birbe, or the Ruins." This little edifice was constructed of massy stones, exactly similar to those which compose the pyramids, and seemed to have been originally covered with six solid blocks that extended from one wall to the other. Its width is about fifteen feet; its height eighteen; and its length thirty-two. The principal entrance is by a gate situated at one end, and two doors open opposite to each other near the same part. The other end is much dilapidated; but from several analogous circumstances, it is evident that the building has not suffered any material diminution.

Three rows of emblematical figures representing a procession, ornament the interior, where, also, the figures of Isis and Anubis are conspicuous: the proportions are those of the Egyptian temples in miniature, and the spaces between the figures are filled with hieroglyphics. Our traveller attempted to obtain some information respecting the original use or design of this curious structure; but the natives appeared totally ignorant of these particulars, and merely asserted, that it was supposed to contain hidden treasures and to be the occasional retreat of evil spirits.

From hence Mr. Browne was conducted to some apartments in a rock, which, though destitute of ornament, appear to have been hewn out with a considerable degree of labour, and seem to have been designed for places of sepulture, as they still contain several human bones. These melancholy relicks had all undergone the action of fire, but whether they were deposited in this manner by a people in the habit of burning their dead, or whether they have been burnt in their detached state by the present inhabitants of the neighbourhood, cannot now be ascertained, though the dimensions of the

catacombs, which are twelve feet long, six wide, and about six feet high, seem to afford a convincing proof that they were originally disigned for the reception of bodies in an unmutilated state.

At Misr el Atike, to the south of Cairo, an ancient mosque has been rescued from oblivion by the mandate of Murad Bey, who, being informed that some treasures were deposited under the edifice, had recourse to the finesse of pretending to rebuild it. He did, in fact, rebuild a part of the wall, and while the workmen were clearing the foundation, they discovered a sycamore chest, which proved to be full of ancient Arabic manuscripts written on vellum, and very beautiful. In this edifice about thirty-five columns still retain their original position, but the rest have been reversed, and set up again without any regard to order. The most perfect remain is a small octagonal building, in the centre of the mosque, supported by eight corinthian pillars, with shafts of blue and white marble. Upwards of a hundred columns stand around; many eliptical arches still remain; and some inscriptions are visible on the west, which might probably have been the place of the ancient gate, as it is now of the modern.

The celebrated portico of the temple of Hermopolis seems to have excited the warmest admiration of Vivant Denon in his late travels through Egypt. "With the exception of the pyramids," says he, "this was the first monument that presented me with a model of the antique Egyptian architecture, the first stones which had preserved their primitive order, and which, without mixture or alteration, had remained four thousand years to give me an immense idea of the arts and of their perfection in this country. A peasant brought from the cottages

of his hamlet, and suddenly placed before an edifice like this, would believe that there was a wide interval between himself and the creatures by whom it was constructed: without an idea of architecture, he might exclaim, "This is the house of a god; a man would not dare to inhabit it!"

"There are in this architecture, parts which, considered by themselves, or reduced into drawings, appear rather uncouth; but in their mass they overawe criticism: here we dare neither adopt nor reject, but we cannot refrain from admiring the beauty of the principal lines, the perfection of the workmanship, and the disposition of the ornaments, which produce a peculiar richness when near, without taking from the simplicity that produces the great. The immense number of hieroglyphics which cover all the parts of this edifice not only have no relief, but do not even cut a single line; they disappear at the distance of twenty paces, and leave the architecture all its gravity.

"Half buried among the eminences, at the distance of two hundred toises from the portico, are some enormous masses of stone, seemingly belonging to an edifice of which some granite columns, now scarcely distinguishable above the surface of the earth, made a part.

"To give some idea of the colossal proportions of the above-mentioned portico, it will be sufficient to say, that the diameter of its columns is eight feet ten inches; that of the two columns of the centre within which the door is comprised is twelve feet, which, together, give a hundred and twenty feet for the facade of the portico: its height is sixty feet. The architrave is composed of five stones of twenty-two feet each in length; the frize the same; and the only remaining stone of the cornice is

thirty-four feet. These details may serve to convey an idea of the skill possessed by the Egyptians in raising these enormous masses, and of the magnificence of the materials they employed.

"With respect to the plan of the temple, nothing can now be discovered of its outward walls or of its nave. The second rank of columns was enclosed to the height of the door; but the rest were entirely open; and it appears probable that the part immediately behind these was not the nave, or sacred part of the temple, but a border or kind of court, by which it was preceded. What authorizes this opinion is, that the frize and cornice have on this side the same ornaments and projections as on the side of the entrance-front.

"The shafts of the columns resemble faces or bundles of sticks, and the base is a good imitation of the lotus at its rising from the root. The capitals have no analogy with those of any known order, but they hold the same station (allowing for the gravity of Egyptian architecture) as the capital of the Doric in the architecture of the Greeks, and it may be said that the former is even richer than the latter. All the other members have their correspondents in the Grecian architecture: on the astragal of either side of the portico, and under the roof between the two columns of the centre, are winged globes, emblems repeated in the same place in all Egyptian temples. The hieroglyphics on the crowns of the capitals are all similar, and all the cielings are decorated with a meander composed of rose coloured stars, painted on a blue ground."

At Ermenta there is an ancient temple, which, from the numerous figures of Typhon, or Anubis, in the interior, seems to have been consecrated to this divinity, who is represented in an erect posi-

tion, with the belly of a hog, surmounted by hal ing breasts like those of the elder Egyptian femal of the present day. To the east at the distance a hundred toises, is a large reservoir, lined w fine stone, and furnished with four flights of ste by which it may be descended: this antique bas receives the water of the Nile at the time of the undation, and still retains it, notwithstanding t ruinous state into which it has been suffered to f The nilometer mentioned by Aristides the soph unascertainably in the centre; but there remains n thing of the column on which it is said the degre of the inundation were marked. Above the bas is an open flight of stairs in tolerable preservatio of which the steps are remarkably low, and cut an enormous block of granite: this flight ascen to a platform which seems to have served as a b pace to the temple behind.

The portico of this edifice has never been fro ed; the sculpture of the capitals is incomplet and the hieroglyphics which were to have cover the whole building are only in an early state of p formance. The sanctuary has been entire finished, and was divided into three parts; the fi opened by a lateral door, on a staircase, which l to the roof; the second received light only throu the door; and the third was totally dark, and ceives no light at present but through a small di pidation near the roof; before this was made it ceived air only by a small lateral door; and this obscure apartment was decorated like all t rest.

About two hundred toises farther in the sa direction, are the ruins of a church built in t fourteenth or fifteenth century, with the most be tiful fragments of antiquity, superb columns

granite originally decorated the nave; but these have all been thrown down, and nothing remains standing but the skreen of the choir, and some parts of the walls of the enclosure.

In the island of Elephantina, there is a square temple of great antiquity, surrounded by a gallery, with pilasters, and two columns of a portico. Only two columns at the left angle are wanting to this venerable ruin. Of the other edifices which have been added at later periods, nothing remains but a few remnants incapable of demonstrating their form, and merely serving to prove that the accompaniments were much larger than the sanctuary: this latter is covered both within and without by hieroglyphics in relief, excellently sculptured, and tolerably well preserved, M. Denon observes, that the species of picture which the side of the interior composes is peculiarly interesting, as it possesses an unity he had not hitherto observed in this kind of decoration, which is commonly divided into compartments. "The whole of the pictures," says he, "seem to represent the consecration of the temple by a hero, or sacrifices to gain the favour and protection of the divinities. That on the side of the interior of the sanctuary represents a sacrifice of wild and domestic quadrupeds, birds, fishes, fruits and flowers; the hero who presents the offerings holding a censer in one hand and a vessel of lustral water in the other. On a high altar is a bark in which is a temple, apparently unable to contain the object to which it is consecrated. On one side, under a table, are flowers of the lotus, palm branches, and figures of Isis; and in a group on the other side is the protection granted to the hero by the two great divinities: in the picture opposite to this, the only differences are

in the figure which offers the sacrifice, and which holds, instead of a vessel of lustral water, a group of pigeons by the wings."

"It is doubtful," continues our author, "whether this were the temple of Cneph, the Egyptian god who most approaches our ideas of the Supreme Being, or whether that temple were not rather the one which stands six hundred paces farther, and of which all the ornaments are accompanied by a serpent, the emblem of wisdom and eternity. Judging by comparison with all the other Egyptian edifices, this latter is of the order most anciently employed; and it is precisely of the same kind with the temple of Cornu at Thebes, which appears to be the most ancient of that city. What is particularly remarkable in this temple is, that the figures seem to have greater freedom, and the robes a greater length and better fashion. Three figures in low relief seem to thank an hero for having delivered a fifth personage, which is almost effaced, but may be discovered to have been prostrate. The hero seems to have killed a robber, and the three figures are either returning him thanks or vowing fidelity. In another piece of sculpture there appears to be represented a subsequent scene of the same event; here incense is offered to the hero; and the peculiarities of the costume and the freedom of the figures is the same. Nothing remains of this temple but one column of the portico, and one side of a gallery ornamented with pilasters."

In the centre of the island are two chambranels of a large outward door, formed of blocks of granite ornamented with hieroglyphics. To the east, is another fragment of an edifice, very small but very elaborate: it consists in the western side of a

narrow chamber, or very small temple, and what remains of the hieroglyphics is admirably sculptured; the ornaments are generally surcharged with a lotus, and among others are the flowers of this plant, of which the withering stem appears to be reanimated by a figure who waters it. This chamber, or temple, communicates with a passage still narrower than itself, which seems to have terminated in a gallery that opened on the Nile, and finished by a large embankment, which defended the eastern part of the island from being injured by the current of the river; there still remain three porticoes of this gallery, and a flight of granite steps, which descend into the water. It suggested itself to M. Denon, that this gallery, this decorated chamber, and this flight of steps, belonged to the nilometer for which travellers have sought in vain at Syene; but after the most careful search, he was unable to discover any mark upon the facing of the steps which could at all resemble graduation; it is possible, however, that the steps themselves might have answered this purpose; or, the upper part being covered, the degrees might have been marked on those stones which Denon was not able to examine.

At Koram Ombos, the site of the ancient Ombos where the crocodile received divine honours, there are several interesting fragments of antiquity; and if they belonged, as it appears, to one edifice, that must have been immense. In the centre is a grand portico, supported by columns with broad capitals, of vast proportions: to the south, a door, which formerly belonged to a wall, is preserved entire: to the west and on the banks of the Nile, arose a mole of considerable proportions, the upper part of which is at present ruined: the attacks of

the river have laid bare its foundations to the depth of forty feet, and manifested that these were constructed with the same solidity and magnificence as the parts designed for decoration. To the north, in the same direction, are the remains of a temple or gallery, ornamented with columns whose capitals are composed of heads. In the space between these two latter edifices is a parapet of hewn stone, which formerly discovered a grand temple in the middle of the area it enclosed, and which must have produced an effect as theatrical as magnificent.

From this place M. Denon went to take a survey of the great quarries of freestone, cut into the mountains which abut both banks of the Nile, between Edfou and Ombos. "From the immensity of the excavations," says our author, "and the quantities of fragments still seen in those quarries, it may be judged that the works were followed for thousands of years, and that they have been competent to supply materials for the greater part of the Egyptian monuments.

"The architectural mania of the ancient Egyptians manifests itself in every part of the quarries; for these, after furnishing materials for the erection of temples, have themselves been sanctified by monuments and decorated with temples. On the banks of the Nile are several porticoes, with columns, entablatures, and hieroglyphics, cut and wrought in the mass, as well as a great number of tombs hollowed in the rock: these tombs are still extremely curious, though broken up, and shamefully disfigured.

"This quarry, prolonged into the mass of the free-stone rock, has a sort of façade toward the river, pierced with gateways, which have served for

the passage of the stone drawn from within, in its progress toward embarkation; this sort of facade has been decorated with little porticoes, equally taken from the natural rock, and sculptured with care. On the left of the entrance of one of the streets in these quarries is an inscription decorated with a diadem covered with sacred emblems, and, what is very remarkable in this performance, the parallel lines are not perpendicular. Here is a portion of stone, left in a form somewhat resembling that of a mushroom; the intention was probably that of affording assistance to the calculation of the works of the quarry, as similar pieces are preserved in the present day in clearing grounds or levelling a soil.

"The figures on the tombs, which are of the natural size, and like the tombs themselves, have been cut out of the solid rock, are for the most part, scarcely traced out; each chamber of these tombs is uniformly lined with painted stucco and has one, two, three, or four figures. The facade of the most considerable is fifty feet in length by fifteen in height, including an entablature; it has five doors, of which the middle one is ornamented with a chambranel covered with hieroglyphics; two square niches containing figures; and behind this, a gallery of fifty feet in length by ten in width, in the centre of which is a door opening into a chamber, at the bottom of which are seven statues; on each side of this interior door is a niche also containing a statue; and at the bottom of the gallery, on the right of the entrance, there is another group of these figures. On the exterior facade there are seven niches, three large ones with figures, and two smaller which are empty; the whole, together with the statues, being cut in the natural rock, the other parts of which have retained their primitive forms.

"Not only in this tomb, but in the smallest ones contiguous, there are large figures in the private chambers. These figures are ornamented with hieroglyphics, traced on the rock, and finished in coloured stucco; and their subjects are uniformly offerings of bread, fruit, liquors, poultry, &c. The cielings, also in stucco, are painted with scrolls in an exquisite style; the floor is cut into several tombs of just dimensions, and of the same form with the cases of mummies, and in the same number as that of the sculptured figures; of these figures, those which represent men have little square beards, with head-dresses hanging behind their shoulders; those which are designed for women have similar head-dresses, but hanging in front, on their naked necks.

"These latter statues have generally one arm passed under that of the figure next them, while the other holds a flower of the lotus, the emblem of death. The tombs in which there is but one figure, are apparently those of persons who have died unmarried; those which contain three may probably belong to husbands who had two wives at a time, or one after the other; perhaps, also, when two married brothers prepared for themselves but one tomb, the statues of themselves and of their wives composed those groupes of two couple which are also found. The apertures of these tombs being all broken, it is now impossible to ascertain the manner in which they were closed; but there are still sufficient vestiges to prove, that all the doors were decorated with chambranels, covered with hieroglyphics, surmounted by a gorge forming a cornice, and an entablature on which was uniformly sculptured a winged globe.

"At Knubis there are some fine remains of temple or temples; but the ruins are so much in piece-meal, and in proportion so different from each other, that it is very difficult to give an account of their possible plan. The most considerable consist of six columns, three of which have capitals formed by a gradual augmentation of the diameter of the shaft, parallel to three others with spreading capitals, united by one entablature. Before this fragment, to the south, are the foundations of a portico, which seems to have been left by the architect in an unfinished state; still more to the south is a block of granite, which appears to be the remains of a colossal statue; and at the western part is a piece of water, the circumference of which was originally lined, and decorated with a columniated gallery. In the western part of the city there is still the door of a sanctuary, and two fragments of small proportions; and before the whole there appears to have been a side-work on the Nile, in the form of a quay. Among these ruins of architecture there are also a few of sculpture, particularly a mutilated groupe of conjoined figures, about three feet in height. Here also is a conical wall of more than twenty-five feet in thickness at its base, built with unburnt brick; and, for the most part, it is in good preservation.

"The ruins of Medinet Abù are equally magnificent, and interesting. On the right of the temple which adjoins the village there is a square edifice which appears to have been a palace, and it is highly probable that the great courts which are in a direct line with it, as well as an immense circumvallation of two hundred feet long, were dependences on this structure: it must also be

remarked that the character of this palace differs materially from that of all other Egyptian edifices, both in its plan, in its double story of square windows, and in a sort of balconies, each of which is supported by four heads in the attitude of caryatides.

"I remarked, in the second portico," says M. Denon, "that Christianity had transformed it into a church, of which nothing now remains but the niche of the choir and the columns of the nave; and I afterward discovered, from a number of little doors, decorated with crosses-fluery, that the dwelling part of two hundred feet, had, according to all appearance, served for a convent to an order of monks of the first ages. In the portico, which had been a church, I observed that the sculptures on the interior wall represented the exploits and triumph of a hero who carried war into distant countries; of Sesostris, perhaps, and his victories in India, as all the bass-reliefs seem to indicate.—A conqueror is represented in the act of pursuing, alone, an army which flees before him, and casts itself into a river to escape his sword: this hero, mounted in a little chariot, guides two horses, whose reins are fastened to his girdle; quivers and maces are fixed all around him; and from an immense bow he shoots arrows on his enemies, who are evidently designed to represent a foreign nation. Farther on, he is represented as seated on the back of his car, the horses of which are held by pages: the hands of the vanquished dead are counted before him; another person writes them down; and a third appears to proclaim the number. The prisoners are led in fetters of various kinds, and are, for the most part, in striped robes, with long plaited hair. Pannels of hieroglyphics of fifty feet

diameter follow, and probably explain these representations.

"To the left, on another face of these galleries, is a long bass-relief, representing on two lines a triumphant march, and is probably that of the above-mentioned hero returning from his conquests. Some soldiers bearing their arms attest that the triumph is military; but soon after, we see nothing but priests, or persons of the initiated casts, with long habits, and transparent tunics: the arms of the hero are covered; and he is borne in a palanquin with all the attributes of divinity: before and behind him march priests carrying palms and calumets; and on his arrival at a temple, he appears to offer a solemn sacrifice. The procession then re-commences, and the hero becomes its leader, preceded by the bull Apis with the attributes of divinity, and followed by an idol, borne by four and twenty priests. Arrived at an altar, a child, with its arms fastened behind its back, is about to be sacrificed before the triumpher, who stops to assist at this horrible immolation; while a priest breaking the stalk of a flower, and some birds flying away, clearly represent death, and the departure of the soul from the body. After this, the hero makes an offering to the god Apis of an ear of wheat; and a protecting genius seems to attend him incessantly. He changes his habit and head-dress, during the ceremony, to denote the different dignities, or degrees of initiation; but the same physiognomy is always preserved, which prove it to have been a portrait:—the air is noble, august and gracious. In a picture, he holds nine figures enchained; incense is offered

him in honour of his victories; a priest writes his transactions, and consecrates their memory.*

## BUILDINGS.

IT is observed by travellers, that the private buildings in the Turkish cities make but an indifferent appearance, and the observation holds particularly good with respect to those of Cairo. The houses of the common people are mostly built of clay, or bricks dried in the sun, and are two stories high; but those of the richer sort are built of freestone to a certain height, above which there is a kind of cage-work, sometimes filled up with unburnt brick; and as they have few or no windows toward the street, they look disagreeable to any one who has been used to the manner of building in our cities, where the houses have something of beauty and regularity without, as well as conveniency and ornament within. Most of the houses in Cairo have flat terraced roofs, where the inhabitants take the air in summer, which is very refreshing in the evening; and those of the richer people have a balustrade round them, ornamented with fine carving, gilding, and other decorations.

The best houses in Cairo are built round a court or square, and notwithstanding the meanness of their appearance, are elegantly furnished and adorned within. Over their halls, which are generally paved with marble, there are handsome cupolas, sometimes open at the top to let in air; gold and azure glisten in their principal apartments, the sofas are furnished with rich velvet cushions, and the floors covered with the finest

carpets, which are one of the chief manufactures of the city. The house said to have been built by a sultan of Egypt towards the end of the thirteenth century is very magnificent. The entrance to the grand apartment is by a fine old door, somewhat in the Gothic taste, but chiefly remarkable for two pillars on each side of it, which appear like two links of a chain hanging down from the capital, though they are cut out of one stone. The grand saloon is in the form of a Grecian-cross, with a cupola in the middle of it, and is beautifully wainscotted ten feet from the floor. To the depth of two feet from the top it is covered with Arabic inscriptions; and underneath them are works of mother of pearl and fine marbles, in the figure of small arches; below which it is all done in pannels, with borders of Mosaic work running round them, composed of pearl, glass, &c.

The castle of Cairo, supposed to have been built by Saladin, is situated on a rocky hill, and looks like another city, being a mile and a half in circumference, and surrounded by thick and lofty walls flanked with stately towers, after the ancient manner of fortification. On the west side of the castle are some very grand apartments, which display the magnificence of the Mameluke sultans, who resided there before Egypt was conquered by the Turks, and which have since been inhabited by the bashas. Some of them are covered with domes, and adorned with Mosaic pictures; and even the doors are inlaid with mother of pearl, ebony, crystal, and other curious materials: But this part of the castle is now taken up by a great number of artificers who are employed by the government, in weaving, embroidering, and preparing the hangings and

coverings that are annually sent to the temple at Mecca.

On the highest ground in the castle there is a spacious saloon, commonly called Joseph's Hall, which is now all open, except on the south side; and is supported by several large columns of red granite, some of which have plain capitals, and other are good Corinthian. Round each pillar is engraven an Arabic sentence, and above them runs a sort of wooden frieze, filled with inscriptions in the same language. Those who have viewed this structure question whether it was ever finished.

The apartments of the basha or viceroy are now in a large court near the middle of the castle, and also the great Divan *, where are to be seen several leathern shields, each of them almost an inch thick, with a javelin sticking in them, wherewith they were pierced by one of the sultans, and are preserved as a monument of strength. The officers under the basha have also noble apartments in this citadel, which are kept in good repair, as well as the other buildings belonging to it, but the walls are running to decay.

There is an incredible number of mosques in Cairo, most of them poor little buildings; but some of them are magnificent fabrics, and deserve the attention of a stranger.

In the neighbourhood of Cairo, are also many mosques that may be reckoned stately structures. One called Amrah, said to have been formerly a

* This name is given to a council-chamber, or court wherein justice is administered in the Eastern nations, particularly among the Turks. The word is also used for a hall in the private houses of the Orientals.

Christian church, has near four hundred pillars, and those of such various kinds, that they seem to have been collected from several ancient buildings. But the mosque which perhaps exceeds all the rest, in the beauty of the architecture and the richness of its ornaments, is one called Kubbe-el-Azab, from the Azabs, a body of Turkish infantry, to whom it belongs. The edifice indeed is but small, being only about twenty yards square; but it is covered with an elegant and majestic dome, raised on a base of sixteen sides, in each of which is a window. From the pavement to the height of eight feet it is lined with pannels of the choicest marble, amongst which are several pieces of red and green porphyry. A frieze that runs round it is filled with Arabic sentences, cut in large gilt characters, and the borders of the pannels are likewise adorned with gilded sculptures. The walls above the frieze are also decorated with inscriptions in the same language, and the whole cupola is gilt and painted in the most curious manner. Its ornaments are a great number of glass lamps, ostriches eggs, and other things of that nature, very common in Mahometan temples.

The Egyptian Christians, called Cophti, or Copts have several churches in Cairo, where their patriarch resides, though he takes his title from Alexandria, as well as that of the Greeks. The patriarchal church, however, is properly that of St. Macarius in Old Cairo, where he is elected and enthroned; and in that town these Christians have ten or twelve churches, which generally consist of a nave and two aisles, with galleries over them, and are adorned in the front with columns that support the roof. The chancel

is separated from the body of the church by a partition, which is frequently embellished with sculptures, and inlaid with ivory, tortoise shell, and other beautiful materials.

## CUSTOMS, MANNERS, AND GOVERNMENT OF THE INHABITANTS OF EGYPT.

AMID the numerous revolutions which all nations have experienced, there are few countries that have preserved their original inhabitants pure and unmixed. The same desire which leads individuals to encroach on other's property, has armed the nations of the earth against each other; and the result of their most obstinate contests has been, to introduce into states a foreign master who has despoiled his vanquished foes of the domain granted them by nature.

Such has been the case with Egypt: deprived, three and twenty centuries ago, of her natural proprietors, her fertile lands have successively become a prey to Persians, Macedonians, Romans, Greeks, Arabs, Georgians, and at length to the race of Tartars distinguished by the name of Ottoman Turks. Several of these nations have left vestiges of their transient possession; but as they have been blended in succession, they have been so confounded, as to render it extremely difficult to discriminate their respective characters.

The real native Egyptians, according to M. Savary, are the Copts; so called from Cophtos, once a famous city in the Thebais. These only appear to be the descendants of the ancient

Egyptians, and have preserved many of the customs of their forefathers, together with the ancient vulgar tongue, although, by so long a subjection to foreign powers, their genius and science have almost sunk into oblivion.

The knowledge transmitted from father to son, of the value and extent of all arable lands, occasions these people to be chosen clerks to the Beys; and in order to conceal their accounts from their masters, they generally write them in Coptic. They do not, indeed, perfectly understand this language, but as their missals and various other works they possess have an Arabic language, it is evident that their ancient language is not lost; and at some future period, it may, probably, supply the learned with means of dispelling the obscurity of the earliest ages, and of removing the veil from many mysterious hieroglyphics.

The Copts appear to have embraced Christianity at a very early period; and Amrou, having conquered Egypt, indulged them in the free exercise of the Christian religion; since which time they have had churches, priests, bishops, and a patriarch, whose residence is at Grand Cairo. Many superstitious practices are mingled with their worship; but, for the most part, they are mild, humane, and hospitable. Paternal tenderness and filial love constitute their domestic happiness, where every tie of blood is cherished and revered. Inland trade, the art of hatching eggs, and raising bees, constitute almost the whole of their knowledge. They often enrich themselves by the administrations entrusted to their care, but they seldom enjoy tranquilly the fruit of their labours. The Bey who gains inti-

nation of their opulence often pillages them without mercy, whilst their want of energy keeps them enchained in misery and abject subjection.

After the Copts, the Arabs are the most ancient people of Egypt, where they have twice obtained the supreme authority. Their first dominion was in the remote ages of antiquity; the second began in the seventh and ended in the twelfth century. Two thirds of the present inhabitants are Arabs, whose manners differ according to their mode of life. Those who have not become husbandmen are governed by their foreign masters, and present a striking example to philosophers of the influence of laws over the human mind. Beneath a tyrannical government, they have lost that good faith which has been said to characterize their nation: villages arm against villages and towns against towns; and during the revolutions continually reviving at Grand Cairo, the country presents a frightful scene of carnage and horror. It is these degenerate Arabs who render the navigation of the Nile extremely dangerous, for they frequently attack boats in the dark, massacre passengers, seize their effects, and commit every kind of outrage.

Another division of the Arabs are devoted to the cares of agriculture, and are governed by their own sheiks, who possess various principalities in the Thebais. Now, as in ancient times, they are the judge, the pontiff, and the sovereign of their people; yet governing less like kings than fathers of families. These venerable patriarchs usually take their repasts at the doors of their tents, and on rising from table they exclaim with a loud voice, "Whoever is hungry let him,

in the name of God, come and eat."—Nor is this a mere form of words enjoined by the precepts of their ancestors, but the invitation is really dictated by unaffected hospitality, and any person is perfectly welcome to sit down and feed on what is set before him. These Arabs are represented as the best of people, ignorant of the vices of more polished nations, and incapable of knavery or disguise. Equally haughty and generous, they repel insult by arms, and never employ treachery; their tents are open to travellers of all descriptions; and utter strangers are always treated with as much respect and affection as their own kindred. "Of their honesty," says Savary, "some idea may be formed by the following fact, to which I was a witness.—An Arab sheik had long come annually to the district of the French, where he took up goods, on credit, of a merchant; still coming the following year at the same time, bringing the money, and purchasing fresh merchandize. One year, sickness prevented him from coming at the usual time; but he sent his son with the money, and continued a trade equally honourable to both nations."

A third class of Arabs is comprised under the general name of Bedouai, of whom we have already given some account. They are divided into tribes, and subsist on barley cakes and the milk of their herds, which they drive into the valleys where they find water and pasturage. Masters of the deserts, they are the enemies of all caravans, attack them wherever they can find them, and force them either to fight or pay tribute. If the resistance be too powerful, they retreat without fear of pursuit; if they prove victorious,

they pillage every one and divide the spoil; but it appears they never put any one to death, unless to revenge their fallen companions.

Of their disinterested generosity to travellers many instances may be adduced. M. Pagés fled over the sands of Arabia Deserta with seven Arabs of this clans; he had lost his water, and provisions, and, falling from his camel, was in imminent danger of being sacrificed to the resentment of an insulted tribe. One of his companions alighted, and, at the risk of his own life, took him up behind him, till they arrived at a place of safety. The whole provision of the Arabs during this journey was one small barley cake a day; this they divided into eight portions, and the one they gave the stranger was always twice as large as their own.—Of the misfortunes attending M. de St. Germain, Volney has given a very interesting relation. The caravan he accompanied was composed of English officers and passengers who had landed from two vessels at Suez, in their way to Europe by Cairo. The Bedouins of Tor, hearing that the travellers were richly laden, resolved to plunder them, and accomplished their purpose about five leagues from Suez. The Europeans, stripped entirely naked, and dispersed by fear, separated into two parties; some returning to Suez, and the remainder pushing forward into the desert, in hopes of reaching Cairo, till hunger, thirst, and extreme fatigue, destroyed them one after another. M. de St. Germain alone survived these accumulated horrors. During three days and two nights he wandered over the bare sands, frozen at night by the bleak north wind, and burnt by the sun during the day, without any other

shade but a single bush of thorns, or any other drink but his own urine. On the third day he perceived the water of Berket el Hadj, and strove to make toward it; but he had already fallen three times from weakness, when a charitable Arab took him up, carried him to his dwelling, and attended him for three days with unremitting kindness. At the expiration of that time he was conveyed to Cairo, where he arrived in a most deplorable condition, but through great care and attention he was eventually restored to health.

An excessive love of liberty induces the Bedouins to prefer a dreary wilderness where they can live independent, to the fertile plains of Egypt where they must live under the dominion of foreign masters. The Turkish government has repeatedly offered them lands, which they have constantly refused; and this independent spirit seems to have been inviolably preserved from the time of Ishmael their progenitor. Sometimes humbled, but never enslaved, they have braved almost every power of the earth, and spurned the fetters in which other nations have alternately been bound.

Except the Copts and Arabs, the Mograbians, or western Mahometans, are the most numerous inhabitants of Egypt: they devote themselves some to trade, and some to arms. Those who become soldiers are, for the most part, adventurers guilty of crimes, and banished from their country by the dread of avenging justice; these frequently abandon themselves to every excess, and invariably sell their services to that Bey who is the highest bidder.

The number of real Turks in this country is not

very considerable, exclusive of the Janissaries and Assabs, who frequently pillage both the natives and foreigners, and employ every means to amass riches. Like the Mograbians, they are ill disciplined, and utterly incapable of opposing the military science of Europeans.

The Jews, Greeks, and Syrian Christians who reside in Egypt, addict themselves principally to commerce, exchange, and mechanic arts. Sometimes their ductile cunning promotes them to be commissioners of the customs, and receivers of the revenue; and in that case they generally employ their power to oppress European merchants, invent new exactions, and shackle their commerce.

Life in the capital of Egypt is rather passive than active. Nine months in the year the body is oppressed by excessive heat, and the mind, in a state of apathy, sighs after calm tranquillity. Effeminate indolence is born with the Egyptian, grows with his growth, and descends with him to the grave, after having influenced all his inclinations and governed all his actions.

The Egyptian rises with the sun to enjoy the morning air; he purifies himself, and performs his appointed devotion; after which his pipe and coffee are brought in, and he reclines at his ease on a sofa. Slaves, with their arms crossed, remain silent at the farther end of the apartment, with their eyes fixed on him, in order to anticipate his wants. His children standing in his presence, unless he permits them to be seated, preserve every appearance of tenderness and respect, till he gravely gives them his blessing and sends them back to the harem. Breakfast ended, he transacts the business of his trade or of-

fice; and as to disputes they seldom arise in the transactions of these concerns; for here the name of attorney is unknown, and every man is his own pleader.

When visitors come, they are received without many compliments, but in a friendly manner. His equals are seated, cross-legged, beside him; persons of distinction are placed on a raised sofa, and inferiors sit upon their hams. When every person has taken his place, the slaves bring in pipes * and coffee, set a perfume brasier in the middle of the chamber, and afterward present sweetmeats and sherbet.

About noon the table is prepared, and the viands brought in a large tray of tinned copper: and though in no great variety, yet always in great plenty. In the centre is a mountain of rice, cooked with poultry, and highly seasoned with spice and saffron. Round this are placed hashed meats, pigeons, stuffed cucumbers, and a variety of fruits. The roast meats are cut small, laid over with the fat of the animal, and seasoned with salt. The guests seat themselves on a carpet round the table; and a slave brings water in one hand, and a ba on in the other, to wash. This is an indispensable custom where each person puts his hand in the dish, and where the use of forks is unknown.

When the visit is almost ended, a slave bearing a plate of burning essences, goes round to the company, and each, in turn, perfumes his beard, and

* The tobacco smoked in Egypt is cut into long filaments, and mixed with the odorous wood of aloes. Their pipes are several feet long, garnished at the end with amber, and sometimes enriched with precious stones.

and sprinkles rose-water on his head and hands. Thus the ancient custom of perfuming the head and beard, as sung by the Royal Psalmist, "Like the precious ointment upon the head, that ran down upon the beard," is still continued.

After dinner, the Egyptians retire to the harem, where they repose for some hours amidst their wives and children: but the poor, who have neither sofa nor harem, lie down on the mat on which they have dined. In the evening it is customary to go on the water, or breathe the fresh air on the banks of the Nile, beneath the umbrage of the orange and sycamore trees. An hour after sun set, supper is served up, consisting of rice, poultry, vegetables and fruits, which are equally grateful and salutary during the heat of summer.

Such is the ordinary life of the Egyptians. Public shows, plays, and interludes are to them unknown; for a monotony which to an European would be death, is delight to an Egyptian. Their days are past in repeating the same thing, and in following the same customs without a wish or thought beyond. The lower class of people, however, are very fond of attending to the tales and tricks of pretended conjurors.

Among many other diversions by which the jugglers delude the common people out of their money, is that of leading about dancing camels. These animals are taught to dance when young, by being brought upon a heated floor, which gives them great pain, and causes them to lift up their legs as if they were dancing, while a person keeps beating on a drum. This practice is continued for about half a year, after which time, when the camel hears the noise of a drum, he strikes into

a dance. The fortune tellers have, likewise, the art of training up little birds, which when any person applies to them to have his fortune told, bring him a slip of paper, on which his future destiny is written.

Egypt as well as Italy has her improvisatore, called *almai* or learned, which title they obtain by being better educated than other women; for to be admitted into this class, it is necessary to possess a fine voice, eloquence, the rules of grammar, and sufficient abilities to compose and sing extempore verses, adapted to any occasion. These almai know all new songs by rote, and their memory is stored with the most popular and interesting tales. At festivals they are generally placed in a raised orchestra, where they sing during the banquet, and afterwards amuse the company with dances in which they display astonishing suppleness of body and flexibility of features; but their most admired attitudes are equally inconsistent with the female character, and dishonourable to the people by whom they are employed.

These almai are frequently introduced into the harems, where they teach the women new airs, recount amorous tales, and instruct them in lascivious dances. It must be observed, however, that they speak their language with purity, have a graceful method of recital, and, habitually addicting themselves to poetry, learn the most winning and sonorous modes of expression. Some of their airs are light and gay, but their excellence appears principally in the pathetic. When they rehearse a tale, in the manner of the ancient tragic ballad, by dwelling upon plaintive tones,

they inspire melancholy, which insensibly augments till the auditors burst into tears.

The almai are generally present at marriage ceremonies, and precede the bride, playing on musical instruments. They also accompany funerals, at which they sing solemn dirges, utter groans and lamentations, and imitate every mark of extreme despair. Their charges, however, are very high, and therefore they seldom attend any but persons of high rank or known opulence. The common people, indeed, have their almai, who are a second order of these women, imitators of the first; but have neither their elegance, gracefulness nor knowledge.

The Egyptians never mention their wives in conversation, or if obliged to speak of them, they say, "the mother of such a person, the mistress of the house, &c." Good manners will not permit a visitor to ask, "How does your wife do, Sir?" but in imitation of their reserve, it is necessary to say, "How does the mother of such a person do?" And even this is deemed an insult unless asked by a relation or an intimate friend. Subject to the immutable laws by which custom governs the East, the women do not associate with men, not even at table. When a grandee intends to dine with one of his wives, she is previously informed, in order that she may perfume her apartment with precious essences, procure the most delicate viands, and receive her lord with every possible mark of attention and respect. Even among the common people, the women ussually stand in one corner of the room while the husband dines, hold basons for him to wash, and serve him at table. "I once dined," says M. Savary, "with an Italian, who had mas-

ried an Egyptian woman, and having lived there long, assumed the habits of the natives. His wife and sister-in-law stood in my presence, and it was with difficulty I prevailed on them to sit at table with us, where they were extremely timid and disconcerted.

The Egyptian ladies have much leisure, which they spend among their slaves; making veils, embroidering sashes, tracing designs to decorate their sofas, &c. Cheerful and passionate songs are likewise accompanied by the slaves with the tambour de basque and castanets; and at the close of the day an elegant repast is prepared, in which the most exquisite fruits and perfumes are served up with profusion.

Once or twice a week these women are permitted to go to the bath, or to visit their female friends. To bewail the dead is, likewise, a duty they are allowed to perform; and many of them may be sometimes seen in the environs of Cairo, reciting funeral hymns over the tombs which they have previously strewed with odoriferous plants and flowers. They receive each others visits very affectionately: when a lady enters the harem, the mistress rises, presses the visitor's hand to her bosom, kisses her, and makes her sit down by her side; while a slave waits to take her veil, black mantle, &c. Coffee, sherbet, and confectionary are then served up; a large dish of oranges, pomegranates, bananas, and melons, is placed on the sofa; perfumed water is brought in a silver bason to wash the hands; and glee and good humour season the repast. At parting they mutually repeat, "God keep you in health. Heaven preserve your children, the delight and glory of your family," &c.

While a visitor is in the house, the husband must not presume to enter: it is the asylum of hospitality, and cannot be violated without fatal consequences; indeed the Egyptian women carefully maintain this privilege, as being deeply interested in its preservation; for a lover, disguised in female habiliments, may be introduced into the forbidden place; and it is necessary he should remain undiscovered, to elude the most tragical punishment.

Attended by their eunuchs, the Turkish women sometimes go upon the water, and enjoy the charming prospects of the banks of the Nile. Their boats are well caved and painted, and may be easily known by the blinds over the windows, and the music by which they are accompanied.

It is generally allowed that facts are better than arguments to show the manners of a people. We shall therefore finish our account of the Egyptian ladies, with a love-adventure, which happened when M. Savary was at Rosetta.—Hassan, an old jealous Turk, had married a Georgian girl of sixteen, and appointed guards to watch over his new treasure. This wealthy lord had a magnificent garden in the vicinity of Rosetta, whither he permitted the youthful Jemily to go, and take the evening air. Slaves of both sexes however, always attended her; the men to watch the walls, and stand centinel at the gates; the women to wait within, while their beautiful mistress languidly strayed among the odoriferous bowers. As she was gravely walking, one evening, by the river side, veiled and surrounded by her slaves, she perceived an European, who had lately arrived at Rosetta: the bloom of youth was vivid on his cheeks, and instantly excited her attention.

She passed slowly, and let her fan fall, that she might have a pretence to stop a moment. The foreigner's eyes met her's, and the look went to her heart: his air, shape, and features, were indelibly imprinted on her mind; and the dread of seeing him no more, gave her a painful sense of slavery. Scarcely had she entered her garden, before she took a confidential attendant aside, and said, "Didst thou perceive the young stranger? Didst thou behold his bright eyes, and how he looked upon me? O, my friend! my dear Zetfa! Go find him, and tell him to walk among the orange groves, to-morrow evening, where the wall is lowest. Say, I wish to see and speak to him, only bid him shun the watchful eyes of my pitiless keepers."

This message was punctually delivered, and the European unguardedly promised; but the contemplation of approaching danger made him break his word. The slave went a second time, and demanded why he had not kept the assignation: his excuses were various, and he fixed a more distant time; but reflection again vanquished passion, and he went not to the garden. Zetfa returned once more; and the youth, seduced by her discourse, swore that on the morrow he would be under the arbour an hour after sunset. The hour of appointment came, and a third time the beauteous Jemily saw herself deceived. Zetfa returned to the European, and reproached him so severely for his ingratitude, that the imprudent youth once more promised; but, left to himself, the dread of an ignominious death made him again violate his engagement. Patience itself has a period; that of Jemily was long; for nine months she solicited a man whom she had

seen but an instant. One evening, after shedding tears of bitterness, forgetting herself in the grove, and thinking only of the object of her love, Hassan treated her harshly on her return. The charm was now broken, and she retired furious to her apartment. "Go once more," said she, "to the perfidious European, and bear him these my last words—I saw you, stranger; I thought you had sensibility, and my heart panted to be yours. Nine months you have deceived me; perjury to you is sport. But beware; your life is in my hands, and I am determined. Hassan will go to-morrow to Faoua, and will not return till late. Either come in the evening and receive your pardon, or a slave shall bring me your head. Jemily swears by the prophet, if longer neglected, to be revenged."

Zetfa faithfully reported this message, and the European hesitated no longer. At the appointed time he came to the wall which separated him from the beauteous Georgian, and, with a palpitating heart, leaped into the garden. Two women, on seeing him, rose and appeared terrified, while he stood motionless. The one was Jemily herself, who held out her hand, and gave him courage. He approached, bowed profoundly, and was kindly raised; a signal was given, and the slave disappeared. "Stranger," said Jemily, "why have you deceived me so long? You love me not."—"Forgive me, beauteous Jemily," replied the European; "it was my fear that detained me; but I am now come to repair my wrongs, and throw myself at your feet. She seemed inclined to continue her reproaches; but, taking him by the hand, which trembled in her own, she led him to an orange grove."—This single

story is sufficient to show the absurdity of attempting to confine the body where the mind is vitiated, or of imposing shackles on a human creature whose spirit revolts against the tyranny of her jealous lord. Virtue is the only true guardian of female honour, and mutual confidence is indispensably necessary to connubial felicity.

With respect to marriages in Egypt, they are, as in most oriental countries, negociated by female relations, who meet most of the maidens of the city at the public baths, and are thereby enabled to describe them with tolerable accuracy. When a choice is made, the alliance is proposed to the father of the young woman, the portion is agreed on, and presents are interchanged. The procession, which is the commencement of the marriage ceremony, usually begins in the evening: dancers precede the bride, with their feet fastened to stilts, and carrying balancing poles; numerous slaves display the effects, furniture and jewels destined to her use; troops of dancing girls keep time with their instruments; matrons, richly clothed, walk with a grave pace; and the young bride appears under a magnificent canopy, borne by four slaves, sustained by her mother and sisters, and covered with a veil embroidered with gold, pearls, and diamonds. A long file of flambeaux illumine the procession; and the almai, in chorus, occasionally sing verses in praise of the bride and bridegroom.

When arrived at the house of the husband, the women go on the first floor, whence they perceive, through the blinds of a gallery, all that passes below. The men, who are assembled in the hall, do not mix with them, but pass part of the night in banquetting and hearing music.

During the ceremony, the bride passes several times before the bridegroom, and always in different dresses, to display her wealth and elegance. The guests having retired, the husband enters the nuptial chamber, and for the first time beholds the face of the woman to whom he has united himself.

Such are the ceremonies of marriage among the Egyptians, which persons of fortune scrupulously observe. The daughter of a mechanic is, in like manner, conducted to her spouse, the only difference consisting in the surrounding paraphernalia. Instead of flambeaux, they burn fir in brasiers, carried on poles; and stilt dancers and tambours de basque supply the want of almai and musicians. The poor man's daughter, destitute of attendants and canopies, borrows a handsome veil, and walks in procession to the sound of cymbals, which her followers strike without producing much harmony.

Almost the same ceremonies are observed by the Copts; but they have a custom of betrothing female children only six or seven years old, which is done by putting a ring on the finger; and they often obtain permission to educate such girls till they are of age to consummate the marriage. These schismatic Christians, however, can have but one wife at a time.

The first care of the Egyptian ladies is the education of their children: and a numerous posterity is universally considered as the most important blessing. This is even the prayer of the poor who earns his bread by the sweat of his brow; and did not adoption alleviate grief when nature proves unkind, a barren woman would be utterly

inconsolable. The mother daily suckles her infant, whose innocent smiles and engaging manners fully recompence all the pains and cares it may have created. Milk diseases, and those maladies which dry up the juices of those young persons who send their offspring to be nurtured by a stranger, are here unknown; for Mahomet has left a positive injunction to this effect:—"Let a mother suckle her children full two years, if the child does not quit the breast; but she shall be permitted to wean it with the consent of her husband."—When obliged, by some particular circumstances, to take a nurse, the Egyptians do not treat her as a stranger; on the contrary, she becomes one of the family, and passes her days amidst the children she has suckled, by whom she is cherished and honoured as a second mother.

History places the infancy of human nature in the East; here paternal authority commenced, and here its rights are still preserved. Each family forms a little state, of which the father is sovereign, and the members of it, attached to him by the strong ties of consanguinity, acknowledge and submit to his power. The children are educated in the harem, under the immediate inspection of their mothers, and are not permitted to come into the hall, especially when strangers are there. Young people are silent in this hall; if men grown, they are allowed to join in conversation, but when the head of the family speaks, they cease and attentively listen; if he enter an assembly, all rise, and, in short, upon every occasion, they show him the most profound respect. A numerous posterity frequently resides under the same roof; the children and grand children come and pay their common father a daily tribute of veneration: the

pleasure of being loved and respected, in proportion as age increases, makes him forget he grows old; the content of his heart sparkles in his eyes, and security smooths the wrinkles of his forehead. He is cheerful and jocular; and while his youthful descendants wear the most modest garments, he is decked in the gayest colours. Happy in the bosom of his family, when on the borders of the grave, he perceives not the approach of death, and sinks to everlasting rest amidst the embraces of his children. Long do they mourn his loss, and each week decorate his tomb with flowers. The Egyptians have lost the art of embalming, but not the feelings which gave it birth.

"Among polished nations," says our author, "the silver-haired sire is often obliged to be silent in the presence of haughty youth, or to assume the manners of a boy in order to become supportable. In proportion as the burden of life is felt, and its pleasures diminish, he finds himself an incumbrance to those who, but for him, had never been. They refuse him consolation when he needs it most; and the cold hand of age withers his faculties, which the kindly flame of filial love warms not.—I was impelled to draw this parallel by the affecting scenes I constantly witnessed in Egypt, where the reverend patriarch, with his beard floating on his breast, smiles in frigid age on his grand-children, who approach him with their caresses. He beholds four generations all eager to pay him filial duty; his heart expands, and he delights in life to its last moment. These people have, in ignorance preserved the simplicity of ancient manners; they know not our arts and sciences, but the sweetest sensations of nature, not taught by book, they know, enjoy, and revere.

Among the various diseases incident to the human frame, those of the eyes are peculiar to Egypt; where the blind are very numerous; and in the city of Cairo almost every one wears a fillet, a token of an approaching or convalescent opthalmy. This affection must not, however, be attributed to the reflected beams of a burning sun; for the Arabs who live amidst the most arid sands have generally good eyes and a piercing sight; nor must we suppose that the disease is occasioned by the exhalations of stagnant waters; for in that case the French * merchants would be all blind; and for upwards of fifty years, not one has lost his sight. The true origin of this disorder seems to have been the Egyptian custom of sleeping in the open air, during summer, on the terraces of their houses, or near their huts. It has also been remarked, that the sea air contributes very much to injure the organs of sight in this misty atmosphere.

The usual diet of the Egyptians appears, likewise, to be a powerful cause. The cheese, sour milk, honey, confection of grapes, green fruits, and raw vegetables, which constitute the ordinary food of the people, produce a disorder which physicians have observed to affect the sight. Bodies thus nourished abound in corrupted humours, which are constantly seeking a discharge. Diverted from the ordinary channels by habitual perspiration, they fly to the exterior parts, and naturally attack the head, because the Egyptians, by shaving every week, and wearing a very hot head-dress, princi-

* The houses of these merchants are situated on the banks of a canal, which, for six months in the year, contains water whose smell is almost insupportable.

pally attract the perspiration thither; and if the head receive even the slightest impression of cold on being uncovered, this perspiration is suppressed, and falls upon the teeth, or still more readily upon the eyes as being the tenderest part.

Blindness is frequently occasioned by the consequences of the small-pox. This disorder, which is very common in Egypt, is not properly treated: during the three first days, confection of grapes, honey, and sugar are administered to the patient, and, after the seventh day, he is allowed milk, meat, and even salt fish, as if he were in perfect health. Inoculation is not unknown to the Egyptians, but it is seldom practised. When they think proper to adopt it, the operation is performed by inserting a thread into the flesh, or by making the patient swallow the powder of some dried pustules.

Several modern authors have asserted that the pestilence is native in Egypt; but M. Savary was assured by some foreign physicians who had resided there above twenty years, that this disease was brought thither from Turkey. "A proof," says our author, "that it is not native in Egypt is, that, except in time of great famine, it never breaks out in the inland towns, but always begins at sea-ports, on the arrival of Turkish vessels, and travels to the capital; whence it proceeds as far as Syene. Having come to a period in Grand Cairo, and being again introduced by the people of Upper Egypt, it renews with augmented fury, and sometimes sweeps off two or three hundred thousand individuals. It always stops, however, in the month of June; and those who catch it at that time may be easily cured. It is also worthy of remark, that excess of heat and cold are equally destructive of

this dreadful contagion; winter kills it in Constantinople, and summer in Egypt. It seldom reaches the polar circle, and never passes the tropic. The caravans of Cairo, Damascus, and Ispahan, which are sometimes infected, never propagate it at Mecca; and Yemen is always secure from its baleful influence.

Europeans stand aghast with terror at the calamities which this dreadful distemper produces in Grand Cairo. According to the commissioners of the customs, this city contains nearly nine hundred thousand inhabitants. The streets are very narrow, and always full of people, who crowd and jostle so violently against each other, that a passenger is sometimes obliged to wait several minutes before he can make his way. In such a situation, one person may communicate the plague to a hundred; for its progress is as rapid as that of a conflagration augmented by the wind.

When the disease first breaks out, the French merchants shut up their district, and cut off all communication with the city; Arab servants, who live without, bring them a daily supply of such provisions as they want, and except bread, which does not communicate the infection, they throw every article, through a hole cut in each door, into a tub of clean water, by which means it is purified, and may be eaten without fear. With these precautions the French enjoy perfect health, while surrounded by all the horrors of death; yet nothing can induce the Turks to adopt similar measures; nor is quarantine performed at a single port throughout the whole Ottoman empire.

Before we speak of the present government of Egypt, it may be necessary to give some idea of the Mamelukes, who have, of late years, been

the real masters of the country. The appellation *Mamelukes* is bestowed on children who have been stolen from the various provinces of the Ottoman empire, and are afterwards sold at Constantinople or Grand Cairo. The grandees of Egypt, who have a similar origin, bring them up in their houses, and destine them to succeed to their dignities. These foreigners, at present, can alone enjoy the title of Bey, and fill the offices of state; the law, indeed, is so precise on this point, that even the son of a bey cannot be elevated to this eminent station; he, therefore, usually embraces the profession of arms, and the divan assigns him a proper maintenance. The Mameluke youths rise gradually, by their merit, through various trusts in the houses of the beys, till they are permitted to govern the towns dependant on their patrons. Their next rise is to the dignity of bey, which gives them a seat among the four-and-twenty members of the divan, or council of the republic.

The principal body of the Mamelukes reside at Cairo: but many of them are dispersed through the country, in order to maintain their authority, collect the tribute, and oppress the people. They are all horsemen; and, as war is accounted the only honourable employment amongst them, it is reckoned disgraceful to walk on foot, none but cavalry being by them accounted soldiers. For some years past, they allowed other inhabitants only the use of mules and asses; and the same mark of indignity was imposed upon Europeans; though, by liberal presents, this might be got over. The Mamelukes, however, are not incited to a continual appearance on horseback merely by their supposed superiority to the rest of the inhabi-

tants, but it is rendered indispensably necessary by their weighty and cumbersome dress.

This dress consists of a wide shirt of thin yellowish cotton, over which is a gown of Indian linen, or some of the light stuffs of Damascus, and above this is a second vest of the same form and width, with sleeves reaching down to the ends of the fingers. The former covering is called *antari*, and the latter *caftan*. The caftan is generally made of silk, or some finer stuff than the under garments, and both of them are fastened by a long belt, which divides the dress into two bundles. Over these they have a third, called *djouba*, consisting of cloth, and made nearly similar to the others, except that the sleeves are cut in the elbow. This coat is lined, sometimes even in summer, with fur; and as if all this were not sufficient, they have an outer covering called the *beniche*, which is the cloke of ceremony, and covers the body so completely, that even the ends of the fingers cannot be seen. Thus when the beniche and other accoutrements are on, the whole body appears like a long sack, with a bare neck, and a fierce head covered with a yellow turban thrust out of it. The turban is called a *kaouk*, and is of a cylindrical form, turned up on the outside with a roll of muslin artificially folded. On their feet they have socks of yellow leather reaching up to the heels, and slippers without quarters, which, consequently, are always ready to be left behind in walking. Lastly, to complete this extraordinary dress, they have a kind of trowsers, so large that each of the legs is sufficiently capacious to hold the whole body; but that they may walk more at their ease under such a load of impediments, they tie all the loose parts of their dress with a running sash. "Thus swaddled,"

says M. Volney, "we may imagine the Mamelukes are not very active walkers; and those who are unacquainted with the prejudices of different countries, will scarcely believe that they deem such heavy habiliments very commodious. In vain we may object that it hinders them from walking, and encumbers them unnecessarily on horseback, and that, in battle, a horseman once dismounted is a lost man. They reply, "It is the custom," and every objection is answered,

In the accoutrements of their horses, the Mamelukes are almost equally absurd. The saddle is a clumsy piece of furniture, weighing with the saddle cloths not less than twenty five pounds, while the weight of the stirrups is about nine or ten. On the back part of the saddle rises a trussequin about eight inches in height, and a pummel before projects four or five inches, so as to endanger the breast of the horseman if he should happen to stoop. Instead of a stuffed frame, they have three thick woollen coverings below the saddle; the whole fastened by a surcingle, which is tied with leather thongs in very complicated knots; and instead of a crupper, they have a large martingale, which throws them upon the horse's shoulders. The stirrups are made of copper, longer and wider than the foot, having circular edges, an inch high in the middle, and gradually declining toward each end. The bridle is equally ill contrived, and greatly injures the horse's mouth.

In the choice of their arms they are more judicious. Their principal weapon is a carbine about thirty inches long, but so large in the bore, that it can discharge ten or twelve balls at a time; which can scarcely fail of doing great execution even from the most unskilful hand. Besides two large

pistols carried in a belt, they have sometimes a heavy mace at the bow of their saddle, for knocking down an enemy; and by the shoulder belt they suspend a crooked sabre, measuring twenty four inches in a straight line from the hilt to the point, but thirty at least in the curve. The Mamelukes commonly procure these sabres from Constantinople, or other parts of Europe; but the beys rival each other in those of Persia, and such as are fabricated of the ancient steel of Damascus.

The whole education and employment of the Mamelukes consists in the exercise of their weapons, or what is conducive to it; so that we should imagine they might at last become altogether irresistible. Every morning the greater part of them exercise themselves, in a plain near Cairo, by firing their carbines and pistols in the most expeditious manner, having an earthen vessel for a mark to shoot at; and the person who breaks it is highly applauded for his skill and dexterity. Here also they exercise themselves in the use of the sabre, as well as of the bow and arrows, though the latter are never used in an engagement. Their favourite diversion is throwing the *djerid;* a word properly signifying a reed, but which is generally made use of to signify any staff thrown by the hand. In this exercise they make use of branches of the palm tree fresh stripped, which are about four feet long, and weigh five or six pounds. With these the cavaliers enter the lists, riding full speed, and hurling them at each other from a considerable distance. As soon as the assailant has thrown his weapon, he turns his horse, and his antagonist pursues in turn.

All these military exercises, however, are not sufficient to render the Mamelukes formidable in

the field. In their engagements they have neither order, discipline, nor even proper subordination; so that their wars are only scenes of robbery, plunder, and tumultuary encounters. The strongest or most daring party pursues the other. If they are equal in courage, they will, perhaps, appoint a field of battle, and that without the least regard to advantages of situation; but fight in platoons, and with the boldest champion at the head of each. After mutual defiances, the attack begins, and every one chooses out his man. After discharging their fire arms, they attack with their sabres; and such as happen to be dismounted are helped up again by their servants; but if nobody happens to be near, the servants will sometimes kill them, for the sake of the money they carry about them. Of late, however, the ordinary Mamelukes who are all slaves to the rest, seem convinced that their patrons are the persons principally interested, and therefore conclude that *they* ought to encounter the greatest dangers. Hence they generally leave them to carry on their disputes by themselves, and, being always sure of finding employment, they return quietly to Cairo until some new revolution takes place.

The mode of living among these Mamelukes is very expensive, as may easily be conceived from what has been already related. There is not one of them who does not cost above a hundred pounds sterling annually, and many of them double that sum. At every return of the fast of Ramadan their patrons must give them a new suit of French and Venetian cloths, with rich stuffs from India and Damascus. Frequently they require new horses and accoutrements, together with gilt stirrups, and saddles and bridles plated with silver;

the chiefs are distinguished by their fine Arabian horses, Cashmirian shawls, and a profusion of trinkets and precious stones.

The character of the Mamelukes is almost the worst that can be imagined. Without affection, ties, or connection with each other, or with the rest of mankind, they give themselves up without control to the most enormous vices; and, according to M. Volney, they are at once ferocious, perfidious, base, deceitful, and corrupted by every species of debauchery.

When Sultan Selim conquered Egypt, he defeated the Mamelukes, and caused their prince to be hanged at the gates of Cairo, but on subsequent reflection he determined to conciliate the affection of those men; and accordingly granted them some important privileges, at the same time making very little change in their former government. The four and twenty beys were to govern as before; except that a basha from the Porte was to reside at Grand Cairo, with whom it was required they should deliberate, from time to time, on the state of public affairs; but if he attempted to infringe their privileges, they might suspend him. They were likewise to furnish a certain quota of troops to the Ottoman court if it were attacked, and further to pay a stipulated tribute, but in other respects, they were left entirely to their own government.

The beys are fully sensible of the power they possess, and frequently abuse it in the most shameful manner. The pacha remains no longer than while he is subservient to their designs; for should he venture to speak in defence of his master's interests, or those of the Egyptians, he becomes a state

criminal; the divan is assembled, and he is immediately expelled.

When a new pacha lands at Alexandria, he gives notice of his arrival to the council of the republic; and some of the beys immediately wait upon him with presents and congratulations. While they attend on him they artfully sound his inclinations, and endeavour to learn, either from himself or his officers, what orders he has brought from the Ottoman court. Should they find them inimical to their own purposes, they dispatch a courier to the chief bey, who assembles the divan and forbids the pacha to proceed any further. They then write to the Grand Signior, that the new govenor has come with hostile intentions, and request his recal, which is sure to be complied with. But when the chiefs of the republic believe they have nothing to fear from the pacha, they invite him to Grand Cairo; deputies being previously ordered to take him on board a sumptuous galley, and escort him all the way. He advances slowly at the head of the fleet, no vessel being allowed to pass that of a pacha; and even those who are making a voyage up the Nile are obliged to follow in his suite. On his arrival at Helai, a small village below Boulac, the chief bey comes in person to receive him; the heads of the republic congratulate him on his landing; the aga of the Janizaries presents him the keys of the castle, and he is conducted with the utmost pomp through the city.

The following account of the entrance of a pacha is taken from the interesting travels of M. Savary, who appears to have been an eye-witness of what he relates. "Various corps of infantry, with their noisy music, march first in two files, their

colours flying. About five or six thousand horsemen follow in good order, while their floating robes, enormous mustachoes, and long shining lances, give them a very majestic and warlike appearance. Then come the beys magnificently clothed, and attended by their Mamelukes, mounted on fine Arabian steeds, adorned with housings embroidered in gold and silver. When our author witnessed this procession, he observed that, "the various retinues of each bey were extremely elegant; the beauty of the youth, the richness of their dress, and their excellent horsemanship, all uniting to form a most interesting spectacle. The pacha mounted on a most beautiful horse, and wearing a cluster of large diamonds in his turban, closed the march, attended by two hundred horsemen, a band of music, and four led horses covered with housings most richly embroidered in pearls and gold. This procession began about eight o'clock in the morning, and continued till noon.

"On the morrow, the pacha assembled the divan, and sat on a raised seat with a grated window, like the Grand Signior. His Kiaya, or lieutenant, read the orders of the Porte, and the sangiacs, profoundly bowing, promised implicit obedience in all things which should not infringe their rights. An elegant collation was then served up; and when the assembly rose, the pacha presented the chief bey with a rich furred robe, and a horse magnificently caparisoned."

After this ceremony, the pacha cannot quit his palace without the permission of the principal bey; but is in reality, a state prisoner. The ambition of the beys, however, presents him with an abundant source of wealth; when, possessing political cunning and a knowledge of his own means, he has

the art to sow dissension among the chiefs, and to form parties; for each will then exert their endeavours to obtain his interest, and riches will soon flow in upon him. The sangiacs, who are nominated by the divan, also purchase the confirmation of their dignity from the pacha, and the inheritance of those who die without issue is always acknowledged to appertain to him; besides a stated revenue of nearly 125,000l. which is raised from the duties paid at Suez, on the merchandize of the Red Sea.

It must be observed, however, that although the Grand Signior's representative may, by certain arts, maintain himself in office and become extremely rich, yet the ground on which he stands is so slippery, that the least wrong step may occasion his fall, and some unforeseen accident frequently proves sufficient to counteract his utmost policy. Thus for example, if some young audacious sangiac happen to vanquish the party espoused by the pacha, and arrive at the dignity of Sheik el Balad or chief bey, he immediately assembles a council, and the governor is ignominiously expelled. His order to depart is entrusted to an officer clothed in black, who, carrying it in his bosom, advances into the audience chamber, and, taking up a corner of the carpet which covers the sofa, says "Come down Pacha," after which he retires. The governor is immediately obliged to pack up, and remove, in the space of twenty-four hours, to Boulac, where he waits for orders from Constantinople. His person is generally secure; but should the prevailing beys have complaints against him, they compel him to render a strict account of his administration, and the presents he has received; after which they divide the spoil. The council of the republic

elects a caimakan, during the interregnum, to supply his place, till the arrival of a new pacha.

## INVENTIONS, DISCOVERIES, ARTS, MANUFACTURES, AND COMMERCE.

EGYPT was anciently celebrated for being the seat of learning, and the nursery of arts and sciences, from which Greece and other nations received them. Geometry is on all hands agreed to have been first discovered in Egypt; and it is said to have owed its rise to the necessity of measuring and laying out the lands, the boundaries of which were almost annually disturbed by the overflowing of the Nile. Astronomy is generally supposed to have been invented by the Egyptians, who, by reason of the constant serenity of the air, and the flatness of their country, might observe the motions of the heavenly bodies earlier, and with more facility than other people. Herodotus, indeed, gives the honour of this invention to the Babylonians, but Diodorus derives the Babylonians themselves, as well as their sciences, originally from Egypt. The ancient Egyptians were acquainted with the true system of the world, now known by the name of the Copernican system; and from them Pythagoras learned it, and taught it afterwards in Greece.

These sciences were, however, in those early periods, but in their infancy. Geometry does not appear to have extended to all geometrical quantities, and subtile theories, like that of the moderns: perhaps it extended no farther than plain measuring, and such rules as were of use in common life. And this will appear more probable, if it be consi-

dered, that Pythagoras, who travelled into Egypt, in order to acquire the learning of that people, after his return home, offered a hecatomb on his discovering that the square of the hypothenuse of a right angled triangle, was equal to the squares formed by the base and perpendicular; and Thales, who also learned geometry in Egypt, sacrificed an ox to the gods, for joy that he had found out a method of inscribing a rectangled triangle in a circle. The professors of astronomy in those early times, appear to have been unable to make any artificial calculations, since Thales was the first who ventured to foretel an eclipse, and Eudoxes and Ptolemy first reduced the heavenly motions into hypotheses and tables.

Claudius Ptolemy, who flourished at Alexandria, in the second century, greatly improved astronomy and geography. He invented that system of the world known by the name of the Ptolemaic system, in which he supposed the earth placed in the centre of the universe; and as many concentric heavens as planets, above which was that of the fixed stars, which were all whirled round the earth in twenty-four hours, from east to west, by the revolution of a primum mobile, supposed above the fixed stars: but at the same time, each of the heavens had a peculiar motion, by which they made just the opposite revolution from west to east, round the earth, some in a few months, that of the sun in a year, and the others in several years. Though the system of Ptolemy was repugnant both to reason and observation, and consequently demolished by Copernicus and his followers, it must be owned, that it was a great improvement in Ptolemy, to have constructed mathematical instruments of a determined and certain utility, and to have imagined in the

heavens an order, which, false as it was, yet, in many respects, enabled the observers to give a probable account of the motions of the sun and moon, and to foretel eclipses, and to improve geography by certain rules. This last use Ptolemy himself made of his astronomy; for by the help of his instruments, he was enabled to determine the latitude and longitude of places, and consequently to construct maps, infinitely better than any of his predecessors.

Sculpture is generally supposed to have been invented by the Egyptians; and the first monuments recorded of this nature were two colossal statues, the one erected in honour of Mœris, king of Egypt, the other in honour of his queen, both placed upon thrones, supported by two pyramids, which were raised three hundred feet high, in the middle of the lake Mœris; so that notwithstanding the prodigious circumference of this lake, these two statues were conspicuous from its banks. The invention of painting is also owing to the Egyptians, at least as far as the four principal colours. The knowledge they had of chemistry seems to make this opinion certain; besides the paintings still to be seen among the old remains of Egyptian buildings, which have so long resisted the injuries of time, and which still retain a fresh and lively colouring, seem to put the matter beyond dispute.

With respect to the ancient state of physic among the Egyptians, Clemens Alexandrinus informs us, that there were forty-two books of Hermes, which contained all the philosophy of the Egyptians, and the six last of which related to medicine, and treated of the construction of the body and its disorders, with the methods of treating

them. Herodotus informs us, that the practice of physic was so divided, that one physician had the charge only of one distemper, and might not presume to take upon him the care and inspection of more.

In most parts of Egypt, and even in Cairo itself, the curious mechanical arts are generally in the hands of Christians. Such artificers as jewellers, silver-smiths, &c. are fully employed at Cairo, in making ornaments worn by the women *, and about the trappings of their horses. The Egyptian pebbles, used for the handles of knives, snuff-boxes, and other toys, are wrought and polished at Cairo to perfection. Their turners are remarkable for making wooden lattices for windows, in a very curious and beautiful manner; and they also make some both of brass and iron, of admirable workmanship, which they place before the windows of their mosques. Upon the whole, however, the preference is given to the artificers of Constantinople, and whatever is brought from thence is much esteemed by the Egyptians.

The inhabitants of Upper Egypt, have a very singular art that deserves to be mentioned. They load a boat with hives of bees when the honey is all spent, and falling down the river in the night-time, they stop in the morning at a place they think most proper for the bees to fly abroad, and

* The women in Egypt, and other parts of the Ottoman Empire, endeavour to make their apparel as rich as possible, because upon the death of the husband, if there are any children, the law allows the widow nothing more than her clothes, jewels, and other equipage, unless particular donations have been made her; so that they are frequently sold to maintain the poor woman after her husband's decease.

collect their wax and honey. When night comes on, and the bees are returned to the hives, they proceed on their voyage, casting anchor again in the morning, and resting all day, as before. By this means, it is said, they arrive at Cairo in six weeks or two months, where they are sure of finding a good market for the cargo collected by their industrious little animals.

The method of hatching chickens in ovens is another curiosity for which Egypt is famous, and may be looked upon as an art peculiar to that country; nay, some pretend that only the people of one village are masters of the business, who, at the proper season of the year, disperse themselves all over Egypt for employment, there being scarcely a town but what is provided with ovens for this purpose. The season for producing fowls after this manner is from January to April, while the weather is temperate, for at other times the heat is too violent. The ovens are built under ground in two opposite rows, with a gallery or passage between them; and they are raised one above another, with holes at the top, as there are likewise in the passage, which they open or stop as they would have the heat diminished or augmented. The fuel they use to heat these ovens is dung and chopped straw, which make a smothering fire, the smoke whereof is very offensive. They continue to heat them gently for eight or ten days together, and then bring the eggs from the lower cells, where they had lain in heaps, and spread them in the upper apartments, so as only to cover the floor, and not lie one upon another. The business is now to turn them every day, and keep a moderate fire in a channel that runs along near the mouth of the ovens; and indeed the art consists chiefly in giv-

ing the ovens a proper degree of heat, neither too much nor too little, for in either case the labour would not succeed. Their general rule is, that the eggs be never made hotter than a man can bear them to be applied to his eyelid. Thus with good management they begin to hatch in about three weeks, at which time it is very entertaining to take a view of these places, and to observe some of the chickens just putting forth their heads, others half out of the shell, and others quite delivered from their confinement.

Thunder, it is said, sometimes occasions great numbers of eggs to miscarry: and, at the best, it is observed, that many of the chickens want a claw, or have some defect, which, perhaps they would not have had if they had been hatched in the natural way. The master of the ovens, according to Mr. Greaves, has one third of the eggs for his pains and charges, out of which he is to make good to the owners any of their number that may happen to be broke or miscarry. The same gentleman tells us, that the fire in the upper ovens, when the eggs are placed in the lower, is thus proportioned: the first day the greatest fire, the second less than the first, the third day less, the fourth day more than the third, the fifth day less, the sixth day more than the fifth, the seventh day less, the eighth day more, the ninth no fire at all, the tenth a little fire in the morning; the eleventh they close all the holes with flax, &c. making no more fire, for if they should the eggs would break. In this manner seven or eight thousand chickens are hatched in a short time; but some persons pretend to distinguish one of these by the taste, from another hatched by a hen, as if the latter were more deli-

cious: though we are apt to think this is nothing but imagination. It has been doubted whether this method of hatching chickens was practicable in any country besides Egypt, the nature of the climate being supposed particularly favourable to that design; but the same experiment has been made in Italy, and other parts of Europe.

The art of fascinating serpents is said to be a secret amongst the Egyptians; and it is certainly worthy the endeavours of all naturalists, and the attention of every traveller, to learn something decisive respecting this affair. "How ancient this art is among the Africans," says Mr. Hasselquist, "may be concluded from the ancient Marii and Psylli, who were from Africa, and daily showed proofs of it at Rome. It is very remarkable that this should be kept a secret for more than two thousand years, being known only to a few individuals, when we have seen how many other secrets have within that time been revealed. The circumstances concerning this fascination of serpents related to me were the following. 1. The art is only known to certain families, who communicate it to their offspring. 2. The person who knows how to fascinate serpents, never meddles with other poisonous animals, such as scorpions, lizards, &c.; but there are other persons who know how to charm these animals, and never meddle with serpents. 3. Those who fascinate serpents eat them both raw and boiled, and even make broth of them, which they eat very commonly; but in particular they eat such a dish when they go out to catch them. 4. After they have eaten their soup, they procure a blessing from their sheik, who uses some superstitious ceremonies, and amongst others, spits on them several times, with certain gestures."

Our author observes that he has frequently seen the Egyptians take the most poisonous serpents with their bare hands, put them in their bosoms, and exhibit a great many tricks with them. "I enquired and examined," says he, "whether they had cut out the viper's poisonous teeth; but I have with my own eyes seen that they do not; we may therefore conclude that there are to this day Psylli in Egypt, but what art they use is not easily known."

Notwithstanding this testimony of Hasselquist, the story of the fascination of serpents has been generally considered fabulous. It is, however, affirmed as a certain truth both by Mr. Bruce and M. Savary. "There is no doubt," says the former of these gentlemen, "of its reality. The Scriptures are full of it; and all who have been in Egypt have seen as many instances of it as they chose. Some have imagined that it was a trick, and that the serpents thus handled had been first trained and deprived of the power of hurting; and, fond of this supposed discovery, they have rested themselves upon it, in the face of all antiquity. But I will not hesitate to aver that I have seen at Cairo, (and this may be seen daily, without any trouble or expence) a man who came from the catacombs where the pits of the mummy birds are kept, who has taken a * cerastes with his naked hand from a number of others lying at the bottom of a tub, has put it upon his bare head, covered it with his red cap, then taken it out, put it in his breast, and tied it about his neck like a necklace; after which it has been permitted to bite a hen, which died in a few minutes; and, to complete the ex-

* See the account of this viper in page 48.

periment, the man has taken it by the neck, and, beginning at the tail, has ate it as one would do a carrot, or stock of celery, without any seeming repugnance.

"We know from ancient history, that where any country has been remarkably infested with serpents, there the people have been screened by this secret; and I can myself vouch, that all the black people in the kingdom of Sennaar are perfectly armed against the bite of either scorpion or viper. They take the cerastes in their hands at all times, put them in their bosoms, and throw them to each other, as children do apples or balls, without having irritated them by this usage so much as to bite. The Arabs have not this secret naturally; but from their infancy they acquire an exemption from the mortal consequences attending the bite of these animals, by chewing a certain root, and washing themselves with an infusion of certain plants in water."

M. Savary tells us, that he saw, at the feast of Sidi Ibrahim, a troop of people, seemingly possessed, with naked arms, and a fierce look, holding in their hands enormous serpents, which twined round their bodies, and endeavoured to escape; but these Psylli grasped them strongly by the neck, avoided the bite, and notwithstanding their hissing, tore them in pieces with their teeth, and ate them alive.

The manner of preparing sal ammoniacum, or sal armoniac, as we commonly call it, is a curiosity which the Egyptians have kept a secret from Europeans till within these forty or fifty years, it being first discovered by father Sicard, who has described the whole process. It is not well known at present what the sal ammoniac or cyreniac of the

ancients was; but it is generally imagined to have been generated in the sands from the urine of camels or other animals, which used to travel with the pilgrims that visited the temple of Jupiter Ammon in the Lybian desert. Dr. Hill, however, explodes this opinion, as having no foundation in any thing the ancients have said about it; and he endeavours to prove, that it was a striated fossil salt, which he says is frequent in the German cabinets; and that Dr. Pococke brought a piece of it to England. The present method of preparing it in Egypt is as follows.

The matter of this factitious salt is soot, caused by burning the dung of cows, camels, or other animals; the hotter it is the better; for which reason that of pigeons is reckoned preferable to all others, though that of camels is much esteemed. Now in Egypt the dung of animals mixed with chopped straw, made into cakes and dried, is the common fuel of the country; and these turfs, being impregnated with alcaline urinous salts, communicate to the soot certain properties which it could not be expected to receive from the smoke of wood or coal, and yet are absolutely necessary for the production of sal ammoniac. With this soot, to which some say they add a little sea-salt, and the urine of cattle, they fill large round bottles within an inch of the neck, which is about two fingers in height. These bottles are cased over with a fat earth, or earth and husks of flax chopped and mixed together, to the thickness of a quarter of an inch; and when this coat is dried in the sun, they lay on another as thick again as the former, and dry it in the same manner. Each bottle contains about forty pounds of soot, which, if it be of the best sort, yields six

pounds of sal ammoniac at the end of the operation. These glass vessels, being filled as above, are placed in a thick bed of ashes, over furnaces built like our common ovens, except that their vaults open with four clifts in a row lengthwise, each of which contains four bottles, so fixed that nothing but the necks appear, which some say are left open, but others that they are luted with wet cotton. In this state they are kept with a constant fire under them, for three days and nights successively; during which time, the acid and alcaline salts rise up to the necks of the bottles, where they unite and coagulate. On the third day, the operator makes a little hole in each bottle just below the neck, to see if the matter be baked enough, and if there be nothing more to be sublimed; and after he has made his observations, he stops it carefully with earth, opening it again when he finds occasion. At last, when the work is brought to the requisite perfection, he puts out the fire, breaks the bottles, shakes off the ashes from the bottom, and takes away the round whitish masses adhering to the necks, which is what they call sal ammoniac, and in such cakes it is sent to Europe. Every great laboratory consists of eight furnaces, disposed in two rooms, so that it employs at once a hundred and twenty-eight bottles. In two towns of the Delta, about a league from Mansoura, there are twenty-five great laboratories, and some small ones, which make every year fifteen hundred or two thousand quintals of this salt: and it is said there are not above three more in Egypt, one of which is in the city of Cairo.

By this account we find, that the modern sal ammoniac is a factitious substance, a chemical preparation; and, whatever may have been imagined

about it, it certainly never was, nor ever can be found truly native. We are told indeed, of some that has been made by a sort of natural chemistry in the mouths and openings of the burning mountains; which does not seem improbable, as it is always an effect of sublimation by fire, and has in a great measure, its origin from soot; but the substance found there, naturally sublimed, when brought to the trial, never proves to be true sal ammoniac, either of the ancient or modern kind, but usually affords crystals the same with those of common salt, and seems no other than sea-salt, half mixed with soot by an irregular sublimation. As to its being made of soot, Dr. James thinks it scarcely credible, that so prodigious a quantity of soot as to produce fifteen hundred or two thousand quintals a year, that is, so many hundred weight, could be furnished in Egypt, which is a warm country, and where they only use fires in their kitchens and baths; and therefore he concludes, that the Egyptians, who make sal ammoniac, use other ingredients besides soot, which they have the address to keep a secret. This is certain, according to the Doctor, that very good sal ammoniac may be made without any soot at all, as was formerly done in the works carried on at Newcastle. Their method was this: to one gallon of bittern, that is, the liquor which drains from common salt whilst making, they put three gallons of urine, letting them stand together forty-eight hours to effervesce and subside. They then drew off the clear liquor into leaden vessels, where being evaporated and crystalized, a good sal ammoniac was produced from the crystals by sublimation. The Doctor adds, that this substance is not employed so much in medicine as it de-

serves to be; for, as it is absolutely a neutral salt, it is extremely penetrating and resolvent, used either externally or internally, and is an excellent deobstruent and cooler, where such medicines are required.

Two powerful causes have contributed to render Grand Cairo the seat of an extensive commerce. The first is, that all the commodities consumed in Egypt are collected within the walls of that city; and all the chief persons of property, having made it their residence, draw thither their whole revenue. The second is the situation, which makes this city a centre of circulation; while by the Red Sea it corresponds with India and Arabia; by the Nile with Abyssinia and the interior parts of Africa; and by the Mediterranean, with Turkey and Europe.

Every year, a caravan from Abyssinia arrives at Cairo, and brings from a thousand to twelve hundred black slaves; together with gold dust, elephants' teeth, gums, parrots, monkeys, and ostrich feathers: while another caravan, destined for Mecca, leaves the extremities of Morocco, and, receiving pilgrims even from the river of Senegal, coasts along the Mediterranean, collecting those of Algiers, Tunis, and Tripoli, and arrives by the desert at Alexandria. From thence it proceeds to Cairo, where it joins the caravan of Egypt in order to proceed to Mecca. The lading of these caravans generally consists of Indian stuffs, shawls, perfumes, gums, and coffee: and the same commodities also arrive by another route at Suez.

Cairo does not retain the whole of this merchandize; but besides what is there consumed, very considerable profits arise from the duties, and the

sums expended by the pilgrims. On the other hand, small caravans frequently arrive from Damascus with silk, oils, fruits, &c. During the favourable season, there are, likewise, vessels in the road of Damietta unloading hogsheads of tobacco from Latahia; the consumption of which is enormous. Others arrive successively at Alexandria, bringing clothes, arms, furs, and wrought silk, from Constantinople; and some vessels come from Marseilles, Leghorn and Venice, with clothes, laces, grocery, paper, lead, and iron. All these articles are first landed at Rosetta, then re-embarked on the Nile, and sent to Cairo.

From this account, it is not surprising that commerce should still continue so flourishing in the capital of Egypt; and we need not doubt the report of the commissioner general of the customs who asserted in 1783, that Cairo had traded to the amount of nearly six millions and a half sterling.

In ancient times, the haven of Alexandria appears to have received the merchandize of the whole world; and the city became, as Strabo calls it, the greatest emporium on earth. A formidable marine was kept up in the Red Sea and the Mediterranean to protect the Egyptian merchants; and a rapidly augmenting commerce was cherished and supported by royal patronage; but subsequent troubles and revolutions conspired to humble the pride of Egypt; and although her commerce is now very considerable, she cannot profit by her situation to rival the Europeans who have discovered new passages to that quarter of the globe from whence she drew her richest commodities. Her ignorant mariners, far from navigating the Indian Ocean, scarcely dare venture

over the Red Sea. "Their greatest effort," says M. Savary, "is their annual voyage to Mocha, where their ill armed saroks, incapable of defence, are laden with the coffee of Yemen, the muslins and cloths of Bengal, the perfumes of Arabia, and the pearls of the isles of Beharim. The coffee which they buy for four-pence per pound at Mocha, they sell for fifteen-pence at Cairo; and this article alone amounts to half a million sterling.

Egypt, even in a decline, however, appears respectable, because she contains within herself the true sources of wealth. Her corn, with which she supplies Arabia, Syria, and a part of the Archipelago; her rice, sent over the Mediterranean; her carthamus flowers, with which the people of Provence annually load several vessels; her sal ammoniac, transported throughout Egypt; her excellent flax, esteemed by the Italians; and her blue cloths, that clothe, in part, the neighbouring nations, all are objects that make the balance of trade in her favour. The Abyssinians cheerfully exchange their gold dust, elephants' teeth, and other precious commodities, for her productions; the cloths, lace, arms, and lead, brought from France, do not equal what they receive; even the merchandize imported by the Turks is far below what they take in return, and the difference is always paid in ready money. Except Mocha and Mecca, where the Egyptians leave a great part of their sequins, all who trade with them bring gold and silver: and, indeed, we may form a tolerable idea of the abundance of these metals in Egypt, when we read, that Ali Bey, fleeing to Syria, carried with him three millions and a half sterling; and that Ismael Bey, es-

caping some years after, loaded fifty camels with sequins, patacas, pearls, and jewels.

"If destitute of shipping," says our author, "Egypt is still so wealthy, what might she not be, if governed by an enlightened people? What an influx of prosperity would arise from opening her canals, repairing her mounds, and restoring to agriculture a third of the grounds buried under the sands; what wealth from opening her mines of emeralds, famous for almost equalling the diamond in durability! With what advantage might her indigo, carthamus, and other substances, excellent for dying, be employed! These are not chimerical riches; Egypt has possessed them for ages; and a wise administration would restore all the prolific treasures of nature."

## CHAP. II.

### OF BARBARY.

UNDER the general name of Barbary we comprehend the kingdoms of Morocco, Fez, Algiers, Tunis, Tripoli, and Barca, which begin at the Atlantic Ocean, and stretch from thence along the coast of the Mediterranean as far as Egypt. This vast tract of land is, next to Egypt, the most fruitful, trading, and populous part of Africa, and is generally supposed to have had its name from the Romans, on account of the ferocity and barbarity of its inhabitants. With respect to its fertility, it must be observed, that Barca is scarcely any thing else but a parched barren desert, with very little water; there being only some small spots near villages that afford a little corn and a few dates, a small quantity of which the natives exchange with their neighbours for sheep and camels. The soil of Tunis is generally fruitful towards the west, but very poor towards the east for want of water; and that part of Tripoli contiguous to Tunis is tolerably fertile. Algiers is very mountainous towards the Mediterranean; but both the hills and valleys, where they are cultivated, abound in corn, dates, almonds, olives, figs, grapes, and other fruits. The country of Fez and Morocco is finely diversified with mountains and vast extended plains, most of them sufficiently fruitful, and pretty well inhabited; though in many parts, as well as the rest of Barbary, it is dry, sandy and barren.

Most of this large country, now called Barbary, was famous in the times of the ancient Romans, against whom the Carthaginians maintained three sanguinary wars, the second of which had almost put an end to the Roman power and glory, as the third did to that of Carthage, which was taken and burnt to the ground. Nor did the Romans rest contented with having destroyed that rival city, and brought the Carthaginians under their yoke; but they extended their conquests on all sides, reduced Numidia and its king Jugurtha, whose ancestors had so long reigned there; and after him the brave Juba, king of Mauritania. Thus not only all the coast of Africa on the Mediterranean, but the inland part as far as the desert, became subject to the Roman yoke, and made new provinces of their vast empire. In this condition it continued, during the reigns of several emperors, till Christianity having taken root in the country, it became as eminent for men of learning and piety, as it is at present for a race of cruel plunderers and pirates, enemies to the Christian faith and name.

## SPRINGS, CAVES, &c.

THOUGH Barbary in general is but indifferently furnished with springs of water, there are some which are remarkable for their qualities. Near the town of Elhamma, on the frontiers of Tunis, there is a hot spring, the water of which is conveyed to the town by an aqueduct, but is so warm and impregnated with sulphur,

that it can scarcely be drank till it has been exposed to the air for four and twenty hours. These hot baths, which have little hovels built over them to shelter them from the weather, are resorted to from all parts of the kingdom. One of them is called the leper's bath, and below it the water stagnates and forms a pool, which perhaps may be the lake of lepers, mentioned by Leo. The water of these springs is perfectly clear, and soft to the palate.

Near the city of Constantina, in the kingdom of Algiers, there is a very hot spring, and at a little distance another that is extremely cold, with a stone structure embellished with statues and other ornaments. The neighbouring people who are very ignorant, have a notion that this place was a college, the masters and scholars of which being very wicked were transformed into these statues. Nor is this the only superstitious opinion that prevails among them, especially the women; for there are great numbers of snails bred among these springs, which their marabbuts, a sort of conjuring priests, have persuaded them are malicious spirits that do them all the hurt they can, giving them violent fevers and other diseases; and the credulity of those poor people the marabbuts fail not to turn to their own advantage.

In the same province of Constantina Dr. Shaw takes notice of other hot springs, called hammam meskouteen, the silent or enchanted baths, situated on a low ground surrounded with mountains. The water of these fountains is of an intense heat, and at a small distance there are others which upon comparison are of as intense a coldness; perhaps therefore these may be the same with those men-

tioned in the preceding paragraph. We may judge of the heat of these sulphureous springs by what the doctor tell us, that they will boil a large piece of mutton very tender in a quarter of an hour; and by what he farther observes, that the rocky ground the water runs over, to the distance sometimes of a hundred feet, is dissolved or rather calcined by it. When the substance of the rock is soft and uniform, then the water, by making every way equal impressions, forms it into the shape of cones or hemispheres, about six feet high, and nearly of the same diameter; which the Arabs * maintain to be so many tents of their predecessors turned into stone: but when these rocks, besides their soft chalky substance, contain some layers of harder matter, not so easily dissolved, then, in proportion to the resistance the water has met with, we are entertained with a confusion of traces and channels, distinguished by the Arabs into sheep, camels, and horses; nay, into men, women, and children, whom they suppose to have undergone the like fate with their habitations.

The sound occasioned by the trampling of horses over the ground about these fountains makes it probable that it is hollow underneath; and our author supposes, that the subterraneous air escaping continually through the springs may cause that mixture of shrill, murmuring, and deep sounds, which, according to the direction of the wind and the motion of the external air, issue out along

* It is to be observed, that Barbary is inhabited by three sorts of people, Moors, Turks, and Arabs, these last living in tents, and their chief riches consisting in their cattle. The Moors are distinguished into whites and blacks.

with the water. The Arabs affirm these sounds to be the music of fairies, who are supposed in a particular manner to make their abode at this place, and to be the grand agents in all these extraordinary appearances.

Another curiosity proceeds from the quality of the water of these springs, which is, that the chalky stone being dissolved into a fine impalpable powder, and carried down afterwards with the stream, lodges itself upon the sides of the channel, nay sometimes upon the lips of the fountains themselves, or embracing twigs, straws, and other bodies in its way, immediately hardens and shoots into a bright fibrous substance, forming itself at the same time into a variety of glittering figures and beautiful crystallizations.

Besides those already enumerated, there are several other mineral springs in the kingdom of Algiers and other parts of Barbary, either moderately warm and proper to bathe in, or too hot for that purpose. There are also several springs and rivers, whose names Dr. Shaw has given us, which are either very salt or brackish; and yet the Arabs, by long use and custom, are very well reconciled to the taste of the water. To these we may add the salt-pits of Arzew, which, are about six miles in compass, and appear like a large lake in winter, but are dry in summer, the water being then exhaled and the salts left behind crystallized.

In the province of Ducala, in the kingdom of Morocco, there is a town called Maitbir, upon a mountain of the same name, noted for its hundred wells, or rather caverns, cut down into the solid rock, which were probably designed for magazines to lay up corn in, where they pretend it will keep

a hundred years *. The common people, however, have a notion that they conceal some treasure, and accordingly they let themselves down by ropes, with lights in their hands, in order to find it out; but we do not learn that they have made any discovery of that nature. These wells, as they are called, consist of several stories one under another, the lowest whereof is very large, and leads to several cells, in which are springs of fresh water. As there are many windings and turnings in these

* It is certain that wheat may be preserved even longer than a hundred years by proper management. In order to this it must at first be shifted from place to place with a shovel every fifteen days, for at least six months successively, and afterwards once a month, or not quite so often, for some time longer. When the dust and other impurities are dispersed by this proceeding, and the corn has exhaled all its fiery particles, it may be kept as long as required, provided the roof of the granary be of a reasonable height, and all humidity excluded. But to prevent the bad impressions of the air, and keep out vermin, the most effectual method is to spread a little unslaked lime over the heap, and sprinkle it with water, whereby a sort of crust is formed upon the surface of the corn, of two or three inches thickness.—The memoirs of the royal academy of sciences inform us, that in the year 1707 a magazine of corn was opened in the citadel of Mentz, which had been stored up in 1578, and the bread made of it was very good. At the castle of Sedan in Champagne the Abbé de Louvois was shown a heap of corn that had been preserved there a hundred and ten years, notwithstanding the moisture of the place at first made it sprout up to the height of eighteen inches. These shoots dying and rotting for want of air, sunk down upon the corn they sprung from; and this glutinous compost, incorporating with the grain underneath it, formed a very thick crust, which dried and hardened, and preserved the rest of the heap. Some bread made of this corn was sent to the French court, and gave great satisfaction.

caverns, it is said those who descend into them are often lost, especially if their lights happen to go out. This we are told was the case of a certain adventurer, who had the good fortune however to stumble upon some animal that lived in these subterraneous apartments, which led him out through a natural passage in the rock, that opened into a thick wood at the foot of the mountain. Upon the discovery of this new opening, people flocked thither with their pick-axes, in order to dig; but instead of finding the supposed treasures, they met with some fresh springs, which filled the whole place with water.

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## FOSSILS.

UNDER this article we shall find little remarkable in Barbary, though the country is not destitute of mines of copper, iron, and other metals. Near Algiers and Bona, a soft flaky stone lies immediately upon the surface of the earth, which is frequently gilded over with gold-like spangles; as the sparry matter, that fills up the fissures, glitters with those that imitate silver. The common flint stone, which most countries have in plenty, occurs so seldom in some parts of Barbary, that our merchant vessels have received some of them in the Downs for ballast, and disposed of them at Algiers for seven shillings per quintal.

Besides the common mould or soil of Algiers, there are two or three kinds of pipe and potter's clay, the former of which generally burns red.

Fuller's earth is also dug in great abundance; to which we may add the steatites or soap-earth, which is in great esteem in the baths for cleansing and softening the skin. Lac lunæ, which the Arabs sometimes use in stopping an effusion of blood, lies usually in the sutures of some laminous rocks, in one part of the country, and a hard species of almagra or Spanish bole occurs frequently in another.

The selenites sometimes spreads itself over whole acres of the woody and mountainous districts, and a transparent, flesh-coloured talc, or gypsum, often expands itself in thin cakes over some rocky parts of the country. In pounding the gypsum we often meet with a number of small gold-like nodules, of a regular mathematical figure; but the gold and silver-like marcasites or pyrites are irregular with regard to their shape, being sometimes formed like the mesentery, kidney, or such sort of figures as they usually assume in other places.

The iron of the kingdom of Algiers is white and good, but is not found in any great quantity. Some of the mountains have a rich ponderous ore, with a mixture of cinnabar, but no mines have been opened there, as Dr. Shaw was informed. They have rich lead ores, from which large quantities of that metal might be obtained, if their mines were under a better regulation. Their method of refining it is to put layers of wood and ore alternately upon each other; and setting the pile on fire, they frequently obtain eighty pounds of metal from one quintal of ore.

The governors of Algiers and Tunis look with an envious eye upon the silver and copper mines of the Tingitanians, though our author supposes,

that their mountains, by farther searches and experiments, might probably be found to contain the same materials, especially copper; for in the mountain of Fernan there are large strata of ponderous stones, tinged all over with green efflorescences; and Dr. Shaw had a specimen from that place which seemed to shoot into grains of tin in no small quantity. The mountain Timolga likewise abounds with stones of the same quality, being in all appearance very strongly impregnated with copper.

## VEGETABLES.

THE cicer, or chich pea, is very much cultivated and esteemed in Barbary. This sort of pulse is called garvancos, and is most valued when parched, being a favourite food to persons of all ages and distinctions. For this purpose there are copper-pans and ovens in almost every street of the oriental cities; and the method of parching these pease seems to be of great antiquity. When parched they are called leblebby, and some writers have taken them for the pigeon's dung mentioned in Scripture at the siege of Samaria. It is certain, says Dr. Shaw, that this pulse is pointed at one end, and acquires an ash-colour in parching; and as the first circumstance answers to the usual figure, the other to the usual colour of pigeon's dung, the supposition is not entirely groundless.

They have a small parsnip in Barbary, somewhat like a turnip, with fibrous roots, which has a taste so agreeably pungent, that it is very much

esteemed, and sold by weight. Besides our common garden herbs, they have calabashes, and several other productions of the vegetable kind, which give a relish to their soups and ragouts; nor should their coriander be omitted, which has always a principal share in the Moorish cookery. Cauliflowers arrive to great perfection in Barbary, insomuch that Dr. Shaw tells us he has seen several that were very white, solid, and compact, measuring a yard or more in circumference. Their musk-melons are little superior to ours in the richness of their taste, but their water-melons exceed any that are raised in the northern climates. This last sort, which they call dillah, seems to be providentially calculated for the southern countries, as it affords a cool refreshing juice, quenches thirst, mitigates feverish disorders, and thereby compensates, in a great degree, for the excessive heats to which these countries are subject.

We have already given an account of the palm or date tree, of which there are great numbers in Barbary; but we may add one particular relating to it, for which we are indebted to the learned traveller so often quoted. It is usual, he says, with persons of fashion in this country to entertain their guests at a wedding, the birth of a child, or upon any extraordinary occasion, with the honey, as they call it, of the date-tree. This they procure by cutting off the head of one of the more vigorous kinds, and scooping the top of the trunk into the shape of a bason. When the sap ascends, it lodges in this cavity, at the rate of three quarts or a gallon a day, during the first week or fortnight; after which the quantity daily diminishes, and in six weeks or two months the juice is entirely consumed, the tree becomes dry,

and is fit for nothing but fire-wood or timber. This liquor, which has a more luscious sweetness than honey, is of the consistence of a thin syrup, but soon grows tart and ropy, acquiring an inebriating quality, and yielding by distillation an agreeable spirit.

There is a shrub very common in the deserts of Barbary, which has the leaves, prickles, flower, and fruit of the jujeb, only with this difference, that the fruit is round, smaller, and more luscious, and the branches are not so jointed or crooked. This fruit is in great repute, and sold in the markets all over the southern districts of the kingdoms of Algiers and Tunis.

In those kingdomes they have a species of apricot, usually of the size and shape of a nectarine, and with the same property of not parting from the stone. The eating of these is never attended with a surfeit, whereas the common apricot is very dangerous, occasions a variety of fevers and dysenteries, and is called by a name that signifies the killer of the Christians. They have two or three species of plums, and cherries, but none of them are either plentiful or delicious. The cherry has been formerly in such esteem, that it continues to be called the berry of the king. Their nectarines are larger than ours, and of a better taste; and their peaches besides their excellent flavour, will commonly weigh ten ounces. Some of their pomegranates are three or four inches in diameter, and of a pound weight. Nor must we omit the prickley pear, called the fig of the Christians, perhaps from its being originally brought from Europe. Many families live upon it during the months of August and September. The walnut and olive-tree are propagated all over Barbary, but hasle,

filbert, gooseberry and currant-trees are scarcely to be met with in the country.

In the year 1723 and 1724, the locusts made vast destruction among the vineyards of Algiers, before which time their wine was not inferior to the best Hermitage, either in briskness or flavour; and though it is much degenerated since, it may still dispute the preference with the wine of Spain or Portugal. The lemon and Seville orange-trees, especially the former, are in a continued succession of fruit and blossoms; but the China orange is not a native of the country, and only bears towards the latter end of autumn.

We shall conclude this article with an observation of Dr. Shaw's relating to the gardens of Barbary; namely, that they are not laid out with any method, beauty, or design, the whole being nothing but a medley and confusion of trees, with beds of cabbages, turnips, beans, &c. and some times wheat and barley dispersed among them. Fine walks, parterres, flower-plats, &c. would be to these Africans the loss of so much profitable soil; as planting in order and regularity, the study of soil and composts, or the aiming at any improvements and discoveries, would be deviating from the practice of their ancestors, which they profess to follow with the utmost reverence and devotion.

## ANIMALS.

OF all the animals of Barbary, the lion, usually called the king of beasts, seems to merit our first attention. This fierce annimal, which rules with a tyrannical empire over the inhabitants of the

woods and deserts, has a head very large, and not at all proportioned to his body. He has a thick flattish nose, a very wide mouth, red fiery eyes, hollow, and looking somewhat awry. His neck is adorned with a fine shagged mane, but the lioness wants this ornament. He has a long tail, very strong legs, and each of his fore feet has five distinct claws, except the hinder, which has but four, all crooked, sharp, and exceeding hard. The hair of some lions is curled, of others lank and thin, and generally of a dun colour; but Mr. Park informs us that he once saw a very large *red* lion in the course of his travels through the interior of Africa. The roaring of the lion is frightful, and every beast dreads his approach. He is of a very savage nature, preying upon other animals, chiefly the wild boar, which yet (as Dr. Shaw informs us) has sometimes been known to defend itself with so much bravery, that the victory has inclined to neither side, the carcases of them both having been found lying dead together, covered with gore and mangled to pieces.

Some have reported that the lion is afraid of women, and that, upon taking up a stick and calling him names, he will immediately lose his fierceness, and fly from the flocks they are attending. Something of this kind (says our learned traveller) perhaps may have happened when they have been well satiated with food, at which time the Arabs pretend the lions have so little courage, that they can seize upon their prey, and rescue it out of their jaws. But these instances are very rare, it oftener falling out, that lions devour women as well as men, for want of other creatures. Fire is what they are most afraid of; and yet notwithstanding all the precaution the Arabs take in this respect,

together with the barking of their dogs, and the noise themselves make all night long, it frequently happens, that a lion will leap into the midst of an enclosure, and bring out along with him a sheep or a goat. If these ravages are repeated, the Arabs take notice where the lion enters, and there dig a pit, covering it over slightly with reeds, or small branches of trees, into which he falls and is taken.

The hunting of the lion, according to Dr. Shaw, is in some respects like the method of taking elephants heretofore described. On this occasion a whole district is summoned to appear, who, forming themselves into a circle, enclose a space of three, four, or five miles in compass, according to the number of people and quality of the ground that is pitched upon to be the scene of action. The footmen advance first, rushing into the thickets with their dogs and spears to put up the game; whilst the horsemen, keeping a little behind, are always ready to charge, as soon as the wild beast makes a sally. Thus they proceed, still contracting their circle, till they all at last either close in together, or meet with something to divert them. This sort of pastime is sometimes very agreeable; for different kinds of animals being by this means driven together, they seldom fail of having chases after hares, jackals, hyenas, and other creatures, as well as the lion. But this sport is frequently attended with fatal accidents; for it is a common observation, that when the lion perceives himself in danger, nay sometimes the very moment he is roused, he will seize directly upon the person that is nearest to him, and, rather than quit his hold, suffer himself to be cut to pieces.

We have already taken some notice of the jackal, which creature, as well as the siyah ghush, or black

cared cat, is supposed to be the lion's provider; but our author thinks it may be doubted whether there be any such friendly intercourse between such different animals. In the night time indeed, as the psalmist observes, when all the beasts of the forest do move, these, like other kinds of beasts, are prowling after sustenance; and when the sun rises, and the lion betakes himself to his den, both the siyah ghush and the jackal have been seen gnawing such carcases as the lion is supposed to have fed upon the night before. This, and the promiscuous noise which the jackal is often heard to make with the lion, are the only circumstances Dr. Shaw is acquainted with in favour of the vulgar opinion.—The jackal yelps every night about the gardens and villages, feeding upon roots, fruit, and carrion. Mr. Ray supposes it to be the lupus aureus of the ancients; but what Oppian describes as such is a creature of much greater ferocity.

Next to the lion, among the quadrupeds of a less tameable nature, we ought to mention the panther, whose skin is of a yellow colour, beautifully marked with round black spots, his hair short and mossy, and who is thought to equal, if not exceed the lion in his savage qualities. This creature is very swift, and attacks both men and beasts; but his usual method of seizing his prey is jumping upon it by surprise. His tongue is as rough as a file, and his skin is highly esteemed for its beauty, and bears a great price, being not very common. The female panther, like the lioness, has two rows of nipples, giving suck to three, sometimes four or five whelps at a time. The Arabs say, that when the young ones breed their teeth, they are seized with a fever, which generally carries off three out of four; and that this is the reason why their num-

bers at present are so inconsiderable. But whether this is owing to such a disease, to a greater dispersion of the Arabs, or to the easier way of killing them since the invention of fire arms, it is certain there would be great difficulty at present to procure a fiftieth part of the number of wild beasts that Africa may be supposed to have furnished in the time of the ancient Romans.

There is an animal in Barbary called faadh, which agrees with the leopard in being spotted, but differs in other respects; for the skin is not only of a deeper colour, but much coarser; neither is the creature itself of so fierce a nature: however the Arabs imagine it to be a spurious offspring between a lion and a leopardess. It feeds upon carrion, sometimes upon roots and herbs, and must be extremely hungry if it attack a sheep or a goat. It can therefore hardly be taken for the lupus cervarius of the ancients, which is described to be a much fiercer creature.

There are two other animals of this country marked like a leopard, but their spots are of a darker colour and the fur somewhat longer and softer. The one is of the cat-kind, about a third less than a full grown leopard, and Dr. Shaw thinks it may be taken for a species of the lynx, or rather for the lesser panther of Oppian. The other has a small pointed head, with such teeth, feet, &c. as prove it to be of the weasel kind. It has a round slender body, about a foot long; and its tail is regularly marked with a succession of black and white ringlets.

The horse, formerly the glory and distinguishing badge of Numidia, hath of late years very much degenerated in Barbary; or rather the Arabs have been discouraged from breeding up a fine race,

which they were sure would one time or other fall into the hands of the Turkish officers. A valuable and well taught Barbary horse (besides the supposed quality of never lying down, and of standing still when the rider drops his bridle) is to have a long pace, and to stop short, if required, in a full career. No other motions are practised or admired in that country, it being reckoned extremely vulgar among the Arabs to trot or amble. But how much soever the Barbs may have formerly been esteemed, at present the Egyptian horses have deservedly the preference of all others for size and beauty, the smallest of them being usually sixteen hands high, and all of them shaped, according to the Arab phrase, like the antelope.

A remarkable animal of the feathered tribe is the houbaara, which is as big as a capon, and its body of a longer shape. It frequents the confines of the deserts, and feeds upon little shrubs and insects. The body is of a light dun or yellowish colour, interspersed all over with little brown marks; but the larger feathers of the wings are black, having each of them a white spot near the middle. Those of the neck are whitish with black streaks, but are chiefly remarkable for their length, and for being erected when the bird is attacked or provoked. Its bill is about an inch and an half long, flat, like that of the starling; and its legs agree in shape, and in the want of the hinder toe, with those of the bustard. Nothing can be more entertaining than to see this bird pursued by the hawk, and what various stratagems it makes use of in order to escape its enemy.

There is a bird called the boo-onk or long-neck, because in walking and searching for

food it throws out its neck seven or eight inches. It is of the bittern kind, somewhat less than the lapwing, having short and slender legs, of a green colour. Its bill is likewise green, three inches long, and in shape resembling that of a stork. The neck, breast, and belly are of a light yellow, but the back and upper part of the wings are of a jet black. The tail is short and the feathers of the neck are long and sometimes streaked with white.

The emseesy, or ox-bird, which is about the size of a curlew, is very beautiful, being all over of a milk-white colour, except the bill and legs, which are of a fine red. It generally feeds in the meadows, along with cattle, but its flesh is not savoury, and soon corrupts.

There is a species of thrush in Barbary which is justly admired for the richness of its plumage. The head, neck, and back are of a fine light green, the wings of a lark-colour, the breast white and spotted like that of a thrush, the rump of a beautiful yellow, and the ends of the feathers of the wings and tail are tipped with the same colour. This bird is not very common, appearing only in the summer-months, when figs are in season.

The Capfa sparrow, so called from a city of that name in Tunis, is a curiosity that deserves our notice as much as any other of this kind. It is about as big as the common house-sparrow, and is frequently found in the date-villages to the westward of the lake of Marks. The colour of it is like that of a lark, except on the breast, which is somewhat lighter, and shines like that of a pigeon. But what this bird is particularly admired for is its sweet melodious note, infinitely prefer-

able to that of the Canary-bird or nightingale. On this account several attempts have been made to bring it to Kairoan and other parts of the country; but it has been always found of so delicate a nature, as to languish and pine away upon being removed from its native climate.

The rhaad or safsaf is a gregarious bird, of which there are two species in Barbary; the smaller is as big as an ordinary pullet, but the larger is about the size of the houbaara, differing also from the lesser in having a black head, with a tuft of dark blue feathers immediately below it. Each species of them has a white belly, the back and the wings of a buff-colour spotted with brown, the tail lighter, but marked all along with transverse streaks of black. The word rhaad denotes thunder in the language of the country, and is supposed to be a name given to this bird from the noise it makes, like our partridges, in springing from the ground; as safsaf, the other name, expresses the beating of the air when the bird is got upon the wing.

Another bird of the gregarious kind is called the kitawiah, which, in size and shape resembles a dove, and, like some birds of that kind, has short feathered feet. Its body is of a livid colour, with black spots; the belly is blackish, and upon the throat there is the figure of a half-moon in a beautiful yellow. Each feather of the tail has a white spot at the extremity, and the middle one is longer than the rest, and pointed. The flesh is of the same colour with that of the rhaad, and is not of an agreeable flavour, but of easy digestion.

Among the more curious birds of Barbary, we may add to the eagle-kind the karaburno, an ash-

coloured hawk, about the bigness of our buzzard, with a black bill, yellow short feet, the back of a bluish colour, the pinions of the wings black, with a whitish tail and belly.

They have a kind of water hen in Barbary, with white spotted wings and dark green feet. It is less than a plover, has a black bill, an inch and an half long, the belly and breast of a dark brown colour, and the back still darker. The rump is white below, and variegated above with black and white streaks. Here also is a sort of shoveler, of the bigness of a wigeon. It has red feet, a broad flat bill, black, and armed with teeth; its breast, belly, and head, are of an iron-colour, and upon each wing there are three spots of blue, white, and green, contiguous to each other.

There is another kind of shoveler somewhat larger than the former, but with a smaller bill, a reddish neck, and a head adorned with a small tuft of tawny feathers. It has a white belly, but the back is diversified with streaks of black and white alternately. The feathers of the tail are pointed, and those of the wings have each of them a black and white spot contiguous to each other. The extremity of the bill is black, and the feet are bluer than those of the wigeon.

As to animals of the lizard and serpent kind, most of those we have described in Egypt are common in several parts of Barbary, particularly the thaibanne, a large serpent, of whose skin, Dr. Shaw says, he has seen purses made, which were four inches or more in diameter.

The zurreike is another serpent common in the deserts, which is usually about fifteen inches long, of a slender body, and remarkable, as the

name seems to imply, for darting itself along with great swiftness; which has induced some authors to suppose it the same with the jaculus of the ancients.

But the most malignant of this class of animals is the leffah, which is of a less uniform turn of body than the serpent last described, and seldom above twelve inches in length. The torrida dipsas of Lucan answers very well both to the name (which signifies to burn) and the venomous quality of this serpent.

The taitah is another species of serpent, between which and the leffah, the Arabs say, there is the same antipathy, as naturalists have long ago observed, between the chameleon and the viper; and that a drop of clammy juice let fall by the taitah upon the leffah, will throw the latter into such convulsions as are attended with almost immediate death.

Few species of insects, and creatures under that denomination, occurred to Dr. Shaw in those parts of Africa he travelled in, but such as have been already described by naturalists. The most curious species of the butterfly kind is near four inches from the extremity of one wing to that of the other, being all over beautifully streaked with dark red and yellow. The edges of the lower wings indeed are to be excepted, which are indented, and terminate in a narrow strip an inch long, bordered with yellow in an elegant manner. What adds considerably to the beauty of this insect, is a spot of a carnation colour near the tail.

The rarest kind of the adder-bolt is one with a broad tail, of a rusty colour, three or four inches in length, and the wings bright and spotted: but there is another of the same size, with a body

more cylindrical, and differing little in form from the common locust.

A beetle with one horn, of the colour and size of a chesnut, is a species to be met with, but the least frequent of any. Its head is notched round, or indented, and its feet broad, like those of the gryllo-talpa or mole-cricket. The lesser nasicornes are every where met with, and a variety of elastic beetles.

Amongst the species of locusts to be found in Barbary, our author mentions one of three inches in length, of a brown colour, with the fore legs armed with strong horny claws. Another sort, of the same size, and of the cucullated kind, has its upper wings streaked with a light green, and the membranaceous ones chequered with flesh-colour, brown, and scarlet. There is a third species about two inches long, with beautiful green wings, whose chief characteristics are two antennæ, which project from the forehead like a couple of feathers.

We have already given an account of locusts in general *; but to what we have said on that subject it may not be amiss to subjoin what Dr. Shaw has related concerning those devouring insects. Those which that gentleman saw in Barbary, in 1724 and 1725, were much larger than our common grashoppers, having brown spotted wings, with legs and bodies of a bright yellow. The wind having been sometime southerly, they first appeared towards the end of March; and in the middle of April their numbers were so much increased, that in the heat of the day they formed themselves into large bodies, ap-

* See our description of the animals of Persia.

pearing like a succession of clouds, and darkening the sun. About the middle of May they began to retire into proper parts of the country to deposit their eggs, and in the month following the young brood began gradually to make its appearance. "It was surprising to observe," says our author, "that as soon as they were hatched, they immediately collected themselves together, forming compact bodies of several hundred yards square, which, marching forwards over trees, walls, and houses, ate up every plant in their way, and let nothing escape them. To stop the progress of these destructive animals, the inhabitants of the country made trenches all over their fields and gardens, and filled them with water; or else endeavoured to destroy them by placing in a row great quantities of heath, stubble, and other combustible materials, and setting them on fire on their approach. These precautions, however, proved ineffectual; the trenches were quickly filled up, and the fires put out by infinite swarms succeeding one another; whilst the front seemed regardless of danger, and the rear pressed on so close that a retreat was impossible. After one of these bodies had been in motion for a day or two, others were hatched to glean after them, which they did in a very effectual manner, gnawing off the young branches and even the bark of such trees as had escaped before, with the loss only of their fruit and foliage."

In this manner they lived near a month upon the ruin of every thing that was green or juicy, till they arrived at their full growth, and, by casting their skins, threw off their worm-like state. To prepare themselves for this metamorphosis, they hang by their hinder feet to a twig, branch, or the

corner of a stone; when by an undulating motion, used on that occasion, their heads first appear, and their bodies soon after. The whole transformation is performed in seven or eight minutes, after which they lie in a languishing condition for a little time; but when their wings are hardened by the air and sun, and the moisture dried up which was left upon casting their sloughs, they return again to their former voracity, with augmented strength and agility. However they do not continue long in this state before they are entirely dispersed, as their parents were before, after laying their eggs to prepare for a fresh offspring.

These insects, sprinkled with salt and fried, are in taste not much unlike our cray-fish. The Jews were allowed to eat them*; and Ludolphus has a dissertation wherein he endeavours to prove that the quails the Israelites fed upon in the wilderness were only a species of locusts: but the Psalmist, in calling them feathered fowls, totally confutes that supposition.

The scorpion, in consideration of its noxious qualities, may claim the next place after the locust. Some of the species are long and narrow, others rounder and larger; but each of them have a tail consisting of six joints, not seven, as some ancient writers have asserted. Those on this side of Mount Atlas are not very hurtful, the sting being only attended with a slight fever, and the application of a little Venice treacle soon assuaging the pain. But the scorpions of Zaab, and most other parts of the desert, as they are larger and of a darker colour, so their poison is more

* See Leviticus xi. 22.

malignant, and frequently proves mortal. The bite of the boolakaz or rhax is of the same venomous nature; and it is computed that twenty or thirty persons die every year by the hurt received from this animal and the leffah.

The method of curing the bite of these creatures is either to burn the part, or to make a deep incision, and cut away the contiguous flesh. Sometimes the patient is buried up to the head in the hot sands, or in pits heated for that purpose. When no great danger is apprehended, they only apply hot ashes, or the powder of alhenna, with two or three thin slices of an onion, tying them as a cataplasm upon the part affected. Olive oil, however, has lately been found a specific remedy against the bite of the viper, being rubbed warm upon the wounds. Of this several instances are recorded in the Philosophical Transactions, particularly those of William Oliver and his wife, who followed the business of catching and selling vipers, and offered themselves to be bit by any viper that should be procured, trusting to the virtue of a remedy they had accidentally discovered, which was only oil of olives, known by the name of salad oil, from its being frequently used with salad. On the first of June, 1734, in the presence of a great number of persons, William Oliver was bit by an old black viper, or adder, upon the wrist and joint of the thumb of the right hand, so that drops of blood came from the wounds. He said that he immediately felt a violent pain and shooting, both to the top of his thumb and up his arm, even before the viper was loosened from his hand, and soon after he felt a pain like that of burning. In a few minutes his eyes began to look red and fiery, and to water very much; and in less than half an hour he per-

ceived the venom seize his heart with a pricking pain, attended with faintness and shortness of breath. Upon this he fell into violent cold sweats, and presently after his belly began to swell, with great gripings and pains in his back, attended with sickness and diarrhœa. During the violence of these symptoms he affirmed that his sight was gone twice for several minutes, but that his hearing continued all the while. He said that in his former experiments he had never deferred making use of his remedy longer than when he perceived the effects of the venom reaching his heart; but this time, being willing to satisfy the company thoroughly, and depending on the oil, which had never failed him, he forebore to apply it till he found himself exceedingly ill and giddy.

About an hour and a quarter after he was bit, a chafing-dish of burning charcoal was brought in, and his arm held over it as near as he could bear it, while his wife rubbed in with her hand the salad-oil, which Dr. Mortimer had brought along with him, lest they should privately add any thing to it. By this means the pain soon abated, though the swelling did not much diminish, and violent vomitings and purgings ensued, with a low and interrupted pulse, so that the physicians present thought proper to give him several cordial draughts, from which he was not sensible of any great relief, but by drinking a glass or two of oil he seemed to have some ease. In this dangerous condition he was put to bed, and his arm again bathed over a pan of charcoal; but, continuing to complain much of his back and belly, the doctor advised his wife to rub them with salad-oil heated, which she accordingly did; whereupon he declared he found immediate ease, and his sickness soon abated. He then fell

into a sound sleep, which was interrupted by persons coming to enquire after him till about twelve o'clock, from which time he slept continually to five or six next morning, when he awaked and found himself perfectly well. On the 3d of June, indeed, his arm remained swelled, and looked red, with spots of yellow, but felt soft, and he had the perfect use of his fingers, no pain or stiffness remaining.

These viper-catchers said they had experienced their remedy to take effect on cows, horses and dogs ten hours after being bit; but as to themselves, being frequently bit, they always carried a phial of salad-oil along with them, and bathed the wound immediately. If it were in the heel, they wetted the stocking thoroughly with the oil; if in the finger, which happened oftenest, they poured some oil into that finger of their glove, which they put on again, and thus never felt any farther inconvenience from the accident, not even so much as from the sting of a bee.—Similar experiments were made upon the same man in the town-hall at Windsor, before Dr. Derham, Dr. Waterland, the physicians, surgeons and apothecaries of that town, and several other gentlemen in the neighbourhood; and though all the symptoms of a viper-bite ensued, the remedy was applied with complete success.

Having mentioned the viper, it may not be improper to give a description of that animal, which is well known not only for the venom of its bite, which is one of the most dangerous poisons in the animal kingdom, but also for the great usefulness of its flesh in medicine. This remarkable reptile has the biggest and flattest head of all the serpent kind, its snout being not unlike that of a hog, with

sixteen small immoveable teeth in each jaw, besides two other large, sharp, hollow, canine teeth, situate on each side of the upper jaw, which are those that do the mischief. These are flexible in their articulation, and are commonly laid flat along the jaw, the animal never raising them but when it would bite; and the roots or bases of them are encompassed with a little bladder, containing a yellow salivous juice, which is the poison. It is about half a yard long, and an inch in thickness; has only one row of teeth, whereas other serpents have two; and its body is not fetid, though the inner parts of other serpents smell intolerably. It creeps slowly, and never leaps, like the rest of the serpent-kind, but is nimble enough to bite when it meets with provocation. The scales under its belly are of the colour of well-polished steel, and the rest of the body is ash-coloured or yellow, the ground speckled with brownish spots. It is a viviparous animal, the female bringing forth her young ones wrapped up in thin skins, which break on the third day, and set them at liberty. She commonly brings forth to the number of twenty, but only one each day. Pliny, Galen, and others of the ancients believed that the young killed their mother in the delivery; but this is not the only mistake they were guilty of on the subject of the viper; for they supposed it ate cantharides, scorpions, &c. which rendered its poison so very dangerous.

As to the manner in which the viper conveys its poison, authors are not perfectly agreed. Redi and Charras have each of them written curious pieces on the subject, but their hypotheses are very different. Redi maintains, that all the venom of the animal is contained in the little bags or blad-

ders before-mentioned, at the bottom of the two canine teeth; from whence, upon biting, the yellowish liquor is squeezed out into the wound, where, mixing with the blood and other juices, it produces so many dreadful symptoms. Charras, on the other hand, maintains that this liquor is not poisonous; that he has given it to pigeons, without their being at all disordered by it; that he has found the viper's bite mortal to animals after the bags have been taken clear out, as well as before; and lastly, that the poison lies in the irritated spirits of the viper, which it exhales in its biting, and which are so cold that they curdle the blood, and stop the circulation. These opposite systems are both supported by a number of well-attested experiments; but the public generally give into that of Redi, as answering best to the mechanism of the parts. Dr. Mead supposes it to be the true one, and adds to Redi's account, that the viper's poison is separated from the blood by a gland lying behind the orbit of the eye, from whence there is a duct that conveys the poison to the bags at the teeth. These teeth, he observes, are tubulated for the conveyance and emission of the poison into the wound, though their hollowness does not reach quite to the tip of the tooth, but ends in a slit a little below the point, out of which the poison is emitted.—Galen says, that the mountebanks in his days used to stop these perforations of the teeth with a kind of paste, after which they would expose themselves to be bitten without danger.

ANTIQUITIES.

A GREAT number of curiosities of this kind are scattered up and down those countries, which were once possessed by the ancient Romans, as may be seen in Dr. Shaw's geographical observations on the kingdoms of Algiers and Tunis. Spaitha, the ancient Susetula, is one of the most remarkable places in Barbary for the extent and magnificence of its ruins; amongst which, at a furlong's distance to the eastward, there is a sumptuous triumphal arch of the Corinthian order. From this arch, all along to the city, there is a pavement of large black stones, with a parapet wall on each side, probably intended to make the entry of the triumpher more commodious. At a little distance from the end of this pavement stands a beautiful portico, built in the same manner as the triumphal arch, which leads into a spacious court, where are the ruins of three contiguous temples, whose roofs, porticoes, and fore fronts are broken down, but all the other walls, with their proper pediments and entablatures, remain perfect and entire. In each of them there is a niche, which fronts the portico; and behind that, in the middle temple, is a small chamber, which perhaps served for a vestry.

At a place called Jemme, in the kingdom of Tunis, there are several antiquities; as altars with defaced inscriptions, a variety of columns, a great many trunks and arms of marble statues, one of which is of the colossal kind in armour, another a naked Venus like the Medicean, both without

heads, but apparently the workmanship of good masters. What this place is most remarkably distinguished by, are the remains of a spacious amphitheatre, consisting originally of sixty-four arches and four orders of columns. The upper order, which probably might be no more than an Attic, has suffered materially from the barbarity of the Arabs, and four arches have been entirely blown up by a bey of Tunis, in a revolt of the Arabs, who made use of it as a fortress; otherwise, as to the outside at least, nothing can be more entire and beautiful. The platform of the seats and the galleries are still remaining; and, by comparing this with other ancient structures, it seems to have been built about the time of the Antonines, agreeing exactly in proportion and workmanship with the buildings of that age.

Besides some ancient cisterns and common sewers, there are scarcely any tokens left of the magnificence of Carthage, the rival of Rome. "We meet with no triumphal arch," says our author, "nor sumptuous piece of architecture; no granite pillars, nor curious entablatures; but the broken walls and structures now remaining are either built in the Gothic manner, or according to that of the later inhabitants. Adjoining to the large public cisterns, indeed, which were near the western wall of the city, we see the ruins of an ancient and celebrated aqueduct, which may be traced to the distance of at least fifty miles. This has been a work of extraordinary labour and expence; and that part of it which runs along the peninsula whereon Carthage was built, appears to have been beautifully faced with hewn stone. At Arriana, a little village two leagues to the northward of

Thirty several arches of this aqueduct are entire, which are about seventy feet high, and the pillars that supported them are sixteen feet square. The channel that conveyed the water lies above these arches, being vaulted over, and plastered with a strong cement. A person of an ordinary size may walk upright in it; and there are holes left at certain distances, both for the admission of fresh air, and the conveniency of cleansing it when necessary."

Over the fountains that supplied this aqueduct with water there were temples erected, of which there are still some remains. One of them, which by its ornaments appears to have been of the Corinthian order, ends very beautifully in a dome, wherein are three niches, probably intended to receive statues of water-nymphs or other deities, supposed by the ancients to preside over fountains. The aqueduct, however, appears to be of much greater antiquity than the temple, having probably been a work of the Carthaginians; it being difficult to conceive how Carthage could well subsist without such a convenience.

In the kingdom of Algiers, near a town called Shershell, lie the ruins of a large city, which, according to a tradition in that country, was destroyed by an earthquake. We may conceive a tolerable idea of its former magnificence, from the fine pillars, capitals, capacious cisterns, and beautiful mosaic pavements that are still remaining. It was supplied with water brought by a large and sumptuous aqueduct, little inferior to that of Carthage in the heighth and strength of its arches; several fragments of which, scattered amongst the neighbouring mountains and valleys, continue to be so many incontestible proofs of the grandeur

and beauty of the work. There are two other conduits still subsisting, which furnish Shershell with excellent water from the mountains, and may be considered as two indisputable proofs of ancient magnificence.

Among the ruins of Tlemsan, or Tremesen, are found several shafts of pillars, and other fragments of Roman antiquities; and in the walls of an old mosque are a number of altars dedicated to the Dii Manes, but there is only one legible inscription. Most of the walls of Tlemsan have been moulded in frames, and consist of a mortar made up of sand, lime, and small pebbles, which, by being well tempered and wrought together, is become equal to stone in strength and solidity. The several stages and removes of these frames are still discernible, some of them being a hundred yards long, and about six feet in height and thickness.

At a place called Kasbaite, on the site of an old Roman city, there are many fragments of antiquity, and, amongst the rest, there is part of the portico of a small temple, dedicated, perhaps, to one of the Roman empresses, as may be conjectured from a broken inscription. A little to the southward are several sepulchral monuments, most of which have been beautifully carved into a variety of figures in bass relief, who are represented mourning, offering incense, or performing some office to the dead; and below the figures lie the inscriptions.

Along a range of hills called Auress, lying to the southward of Constantina, are spread a number of ruins, the most remarkable of which are those of L'erba or Tezzoute, near three leagues in circumference. Here are a great variety of antiquities; for, besides the magnificent remains of several of

the city-gates, Dr. Shaw observed the seats and upper part of an amphitheatre; the frontispiece of a fine Ionic temple dedicated to Esculapius; a large oblong chamber, with a great gate on each side, intended, perhaps, for a triumphal arch; and a little beautiful mausoleum, built in form of a dome, supported by Corinthian pillars. These and other edifices of the like nature sufficiently demonstrate the once flourishing state of this city, which appears to have been the Lambesa of the ancients. Our learned author copied several Roman inscriptions found among these ruins.

About Constantina, the ancient Cirta, there are many remains of antiquity, particularly on a neck of land to the south west, which is entirely covered with broken walls, cisterns, and other ruins. Besides these, there are still remaining, near the centre of the city a set of cisterns about twenty in number, making an area of fifty yards square, which probably received the water brought to them by an aqueduct, the fragments of which demonstrate the public spirit of the people of Cirta in erecting a structure that must have required an immense quantity of materials.

Upon the edge of a precipice to the northward are the remains of a stately edifice, at present occupied by a Turkish garrison. Four bases of pillars, seven feet in diameter, with their respective pedestals, are still in their places, and seem to have belonged to the portico. They are of a black stone, little inferior to marble, probably hewn out of the range of rocks on which they are founded.

The side posts of the principal gate of the city are of a reddish stone, as beautiful as marble, and very neatly moulded and pannelled. An altar of white marble makes part of a neighbouring wall,

and on that side which is in view is carved, in relievo, a well-shaped simpulum, a vessel used by the ancients in their sacrifices. The gate toward the south-east is in the same fashion and design, but much smaller.—The bridge appears to have been a master-piece in its kind, having had the gallery and columns of the arches adorned with cornices, festoons, heads of oxen and garlands. The key-stones of the arches are also charged with Caducei and other figures; and between the two principal arches there is a well-executed bass-relief, representing a lady treading upon two elephants, which have their faces turned towards each other, and seem to twist their trunks together. The female figure has a large scollop-shell over her head; appears dressed in a close-bodied garment, like a modern riding-habit; and seems to look scornfully upon the city.

As to the city of Algiers itself, of whose antiquities the reader may perhaps expect an account, our author tells us there are few to be met with in that city, which merit the attention of the curious.

The other parts of Barbary, besides those which Dr. Shaw had the opportunity of viewing, especially near the sea-coast, are not destitute of antiquities, though they are not to be met with in any great abundance. We have therefore little to add on this subject from the kingdoms of Fez and Morocco, and so much the less, as we have not the same excellent guide to conduct us through those countries. It may not be improper, however, to mention a curiosity of the ancient kind, a few miles distant from Tangier, where there is a vast hole like a coal-pit, many fathoms deep, which leads into a great number of subterranean apartments, all lined with marble. These, from the

many statues, urns, and old Punic inscriptions that have been found in them, were undoubtedly repositories for the dead, like the catacombs in Italy and Egypt.

## BUILDINGS.

THE imperial palace in the city of Morocco resembles a fortress, being surrounded by a ditch and high walls, flanked with towers and other works. The walls have but two gates, both large and stately, the one looking towards the country, the other to the city. The royal apartments are covered with leaf-gold, especially about thirty large halls or rooms of state, and the sumptuous galleries leading from one to the other. The gardens are very beautiful, being adorned with fish-ponds, terraces, and every embellishment that is accounted grand and delightful in the Moorish taste.—In the midst of this fortress stands a magnificent mosque, remarkable for its largeness, its brazen gates, and other ornaments, but especially for its high tower, on the top of which were formerly four golden balls, one above another, fixed on a strong bar of iron which ran through them all. The lowest was biggest, the second but half as large, and the other two lessening in the same proportion. The body of the balls was of copper, but plated all over very thick with gold, and all the four together weighed seven hundred pounds. They are said to have been set up by a daughter of the king of Gago, married to a king of Morocco, who is reported to have sold all her jewels to defray the expence of this whimsical ornament;

which being done by the direction of some pretended conjurer, under a proper constellation, the superstitious people imagined it would be very dangerous and unfortunate to remove them; insomuch that, one of their kings having resolved to take them down to pay his troops, the people strenuously opposed it, offering rather to sell their wives and children to raise him money. However, Marmol tells us, that, when he was there, Muley Hamed, more covetous than superstitious, caused the highest to be taken down, the gold whereof was sold to a Jew for twenty-five thousand pistoles, and the copper, being just gilt over anew, was put up again to suppress the murmuring of the people. The Jew, it seems, was found hanged on the tower; and it was given out that this was done by demons who had the care of the halls: And, Muley Hamed losing both his crown and life soon after, his misfortune was supposed to be owing to that covetous action. Notwithstanding this, Muley Ishmael ventured to have them taken down and put into his treasury.—This, with some other mosques chiefly built of marble and leaded on the top, a few colleges and hospitals, and a handsome bridge, is all that is left of the ancient splendor of this city, which is run to such decay that many of the streets are quite uninhabited.

Among the vast number of mosques in the city of Fez, which some compute to be above five hundred, there are reckoned fifty of the first rank, all of them well built and endowed; one of which, according to Gramaye, is half a league in compass, and has thirty large gates. The minaret or tower belonging to it is of a prodigious height, and supported by fifty stately pillars. The body of the building is covered with seventeen principal arches

or roofs, besides a vast number of inferior ones, all of which are supported by fifteen hundred large columns of white marble. A vast number of lamps, some of a prodigious size, are kept continually burning in this mosque; and the cisterns for people to wash in, before they go to prayer, are said to be four hundred. It stands in the heart of the town, and is esteemed the largest and richest in all Barbary. Within the enclosure of this mosque there is likewise a stately college, and the public buildings of the city in general are beautiful and majestic.

Mequinez, the northern capital of the empire, is situated at the extremity of the province of Beni Hassen, and has a palace about four miles in circumference, seated in a spacious plain. The buildings are of rich mortar, without either brick or stone, except for pillars and arches; and the mortar is so well wrought, that the walls resemble one entire piece of terrace; they were formed in wooden cases, with which the mortar was rammed down by Christian slaves, much in the same manner as the paviors among us drive down the stones: all raising together heavy pieces of wood, and keeping time in their strokes. These wooden cases were built higher as the walls rose; and, when they were finished, and dry enough to stand firmly without them, were removed. The whole building is exceedingly massy; and the outer wall, which surrounds the whole, is twenty-five feet in thickness.

Mr. Windus, who was in the retinue of Charles Stewart, Esq. ambassador to the emperor of Morocco in 1720, observes, that he attended his excellency to see this palace, when they passed through some large rooms filled with men and

boys, making saddles, stocks for guns, &c. and, having passed through several large neat buildings, at length entered the most inward and beautiful part of the palace, where all the columns, which form a colonade of vast length, are of marble, and are said to be ancient Roman pillars brought thither from Sallee: the arches and doors of the apartments are finely ornamented. From thence they were conducted to another neat regular building with piazzas all round. The area was checquer work, and in the middle was a row of marble basons at certain distances, with little channels cut in stone, conveying water from one to the other. They afterwards visited the room which had been formerly the residence of one of the queens, and saw the baths and some beautiful cobahs belonging to that apartment. These cobahs are lofty and magnificent rooms, each covered with a dome painted with a sky blue, adorned with stars, and a golden sun in the middle, of curious workmanship. From thence they proceeded through several other buildings, chiefly consisting of oblong squares with piazzas; under which the doors enter into the lodgings, which are generally ground rooms; the doors of each building being all of one size and form, finely inlaid, and some of them gilt. In one of these squares was a fountain with channels of marble, forming a neat labyrinth.

The palace of the basha of Tetuan, a city of the kingdom of Fez, is much admired by travellers, and seems worthy of description. The entrance into this magnificent structure is through a cloister, which leads to a great square surrounded by a piazza, in the middle of which is a marble fountain. The pavement of the area, and of the

piazza, is of mosaic work; on each side of the square is one large room, and at each angle a square tower of a considerable height above the building, in two of which are stair-cases that lead to the grand apartments. In the third is a door leading to a mosque; and in the fourth another, that opens into the gardens. On each side of the galleries above, which run over the piazza, are fine apartments for the basha's wives, each apartment consisting of five rooms, viz. one large room covered with a cupola, in the centre of four lesser rooms; and through these are doors that lead to the baths of the women, and the lodgings of the female slaves. Both the doors and cielings of the house are very lofty, and over the women's apartments are four noble terrace-walks, which overlook the town, a deep valley beneath it, and part of the Mediterranean. At the end of each terrace there is a turret with lattices, where the women sit to work, and can see all that passes without being seen. In the evening the ladies usually walk in the garden, where several of the walks are shaded with vines turned over in the form of arches, the walls of the garden being so high that they cannot be overlooked from any part of the town.—To this account of the basha's palace we may add an observation of a certain author, that the Moors of quality have scarcely any pleasures but what they take in their women, houses, gardens, and horses: conversation with men is what they do not relish; the reason of which is supposed to be, that their law prohibits them wine, without which good humour and sprightly discourse cannot be long maintained.

We have lately observed, that the great mosque at Fez is looked upon as the most superb struc-

ture of that kind in Barbary; but Dr. Shaw says, that one at Kairwan or Kairoan, in the kingdom of Tunis, is accounted the most magnificent, as well as the most sacred, of any in that country. The inhabitants * told our author, that it is supported by at least five hundred granite pillars; and yet, among the great variety of columns, and other ancient materials employed in this large and beautiful structure, he could not be informed of one single inscription.

We shall conclude this article by extracting from Dr. Shaw, to whom we are already so much indebted, an account of the method of building, both in Barbary and the Levant, which seems to have continued the same, from the earliest ages, without the least alteration or improvement: for, as there is a near relation between the present Moorish buildings and those that are occasionally mentioned in the Holy Scriptures, it is presumed that an account of the structure and contrivance of the former may contribute to the clearing up some difficulties that have arisen from not rightly comprehending the fashion of the latter.

Large doors, spacious chambers, marble pavements, cloistered courts, with fountains in the middle, are certainly conveniencies very well adapted to the circumstances of these climates, where the summer heats are generally so intense. Besides, the jealousy which masters of families commonly entertain, is less liable to be alarmed whilst all the windows open into private courts, except sometimes a latticed window or balcony towards the street, which is only opened during the celebration of some public festival.—

* Christians are not permitted to enter a Mahometan mosque.

But to come to a more particular description of the Moorish and Oriental buildings.

If we quit the streets of their cities, which are usually narrow, with sometimes a range of shops on each side, and enter into any of the principal houses, we first pass through a porch or gateway, with benches on each side, where the master of the family receives visits and dispatches business; few persons, not even the nearest relations, having admission farther, except upon extraordinary occasions. We next advance into the court, which, lying open to the weather, is paved with stone or marble, (according to the owner's wealth or dignity) in order to carry off the water *. This court is made use of to receive large companies, as upon the celebration of a marriage, the circumcision of a child, or such occasions; and it is then strewed with mats or carpets for their more commodious entertainment. It is likewise usual at these times to have the court sheltered from the heat or inclemency of the weather, by a sort of veil, which, being expanded upon ropes from one side of the parapet-wall to the other, may be folded or unfolded at pleasure †.

The court is generally surrounded with a cloister, over which, when the house has one or more stories, a gallery is erected of the same dimensions, having a balustrade, or a piece of carved

* There is something very analogous, as our author observes, betwixt this open space in the Moorish buildings and the impluvium or cava ædium in the Roman architecture; both of them being alike exposed to the weather, and giving light to the house.

† To some covering of this kind, the Psalmist seems to allude, in that beautiful expression of "spreading out the heavens like a curtain."

or latticed work, going round it. From the cloister and gallery, doors open into large chambers, of the same length with the court, but seldom or never communicating with each other. A whole family frequently lives in one of these chambers, which makes the cities so exceeding populous, that the plague always sweeps away great numbers.

People of fashion hang the chambers of their houses with velvet or damask from the middle of the wall downwards, the rest being adorned with ingenious wreathings and devices in stucco and fret-work. In such houses the cieling is usually of wainscot, either curiously painted, or thrown into pannels with gilded mouldings and scrolls of the Koran intermixed. The floors are laid with painted tiles or plaster of terrace; and as the inhabitants do not use chairs, but sit cross-legged or lie at length upon these floors, they have them constantly spread with carpets, sometimes very rich and beautiful. For their greater ease, a row of damask or velvet bolsters is ranged along each side of the floor; and at one end of each chamber there is a little gallery, raised four or five feet above the floor, with a balustrade in the front of it, where their beds are placed.

The stairs are sometimes in the porch, sometimes at the entrance into the court; and, when there are two or more stories, they are continued through a corner of the gallery to the top of the house, which is always flat, and covered with a strong plaster of terrace, from whence the rain-water falls into cisterns below the court. The terrace is surrounded by a wall breast-high, or else with balustrades or latticed work, to prevent people's falling down; for upon these terraces

they hang their linen to dry, prepare figs and raisins, enjoy the cool breezes of the evening, converse with each other, and offer up their devotions. By this means, when one of the oriental cities is built upon a level spot of ground, a man may pass from one end of a street to the other along the tops of the houses: from which mode of building, Dr. Shaw takes occasion to explain the case of the paralytic said to be let down through the roof, Luke v. 19. which circumstance has given great offence to some persons. This pretended difficulty the doctor very learnedly removes, by showing there is no necessity to suppose that a breach was made in the tiling, or any thing of that nature, but that the patient was carried to the top of the house, and thence, after the veil above-mentioned was drawn away, let down through the opening into the midst (of the court) before Jesus.

To most of these houses a smaller one is annexed, which sometimes rises one story higher than the house, and at other times consists only of one or two rooms and a terrace; whilst others are built over the porch, and, except the ground-floor, have all the conveniences of the larger house. From these there is a door of communication into the gallery of the house, kept open or shut according to the master's discretion; besides another door, which opens immediately from a privy stair-case down into the porch or street, without giving any disturbance to those in the house itself. In these back-houses strangers are usually lodged and entertained; in them the sons of the family are permitted to keep their concubines; and thither the men are wont to retire from the hurry and noise of their families, to be more at leisure for meditation or diversions.

With respect to the mosques of these countries, they are built exactly in the fashion of European churches, but, instead of using seats and benches, they only spread the floor with mats, upon which they perform their devotions. Near the middle of a mosque, particularly the principal one of each city, there is a large pulpit balustraded around with an ascent of about half a dozen steps. Upon these, one of the priests places himself every Friday, which they call the day of the congregation, and either explains some part of the Koran, or exhorts the people to piety and good works. There is a niche in that part of the mosque which stands towards Mecca, whither the people turn themselves during the whole course of their devotions; and this niche, as a judicious writer, conjectures, represents the presence and at the same time the invisibility of the Deity. The mosques have minarets or towers, as we have already mentioned, which a cryer ascends at the appointed times, displays a small flag, and with a loud voice proclaims the hour of prayer.

Our author makes one observation farther with regard to the buildings above described, viz. that both the plaster and cement which are made use of, particularly where extraordinary strength is required, are, according to trial and appearance, of the same consistence and composition with those of the ancients. "Those cisterns," says he, "which were built by sultan Ben Eglib, in several parts of the kingdom of Tunis, are of equal solidity with the famous ones at Carthage; continuing to this day, unless where they have been broken designedly, as firm and compact as if they were but just finished. The composition is this: They take two parts of wood-ashes, three of lime, and one of

fine sand; which, after being well sifted and mixed together, they beat with wooden mallets for three days and nights incessantly, sprinkling them alternately with a little oil and water, till they become of a proper consistence. This mixture is chiefly used in their arches, cisterns, and terraces; but they use tow and lime beat together with oil only, without any water, to join the pipes of their aqueducts. Both these compositions soon become as hard as stone, and suffer no water to pervade them.

## CUSTOMS, MANNERS AND GOVERNMENT, OF THE NATIVES OF BARBARY.

THE extensive country of Barbary is chiefly inhabited by three different sorts of people; the Moors, who are the original inhabitants; the Arabs, who long ago over-ran the country; and the Turks, who have made themselves masters of some of the best provinces, and rendered the kingdoms of Tripoli, Tunis, and Algiers, tributary to them. There are also settled here a variety of foreign nations, as Christians, Jews, and others, with an innumerable multitude of renegadoes, who have renounced their faith. The greatest part of the Moors are said to be involved in ignorance and superstition, and to be treacherous, fraudulent, and deceitful. Indeed the cruel oppressions they suffer under their tyrannical government have greatly contributed to their degeneracy; they being crushed, on the one hand, by a heavy load of taxes, and treated with the utmost cruelty by their governors; while, on the other, they are exposed

to the inroads of the Arabs, who strip them of the small pittance they are able to lay up; whence they dare not provide more than is barely sufficient to serve them the year round, lest their plenty should induce those robbers to visit them the oftener, or their landlords to raise their rents. Hence, if from an unexpected good crop, they obtain more corn than they want, they take the utmost pains to conceal it, by burying it under ground, or stowing it in caverns: whence they are in danger of being bastinadoed and tortured, or both, to oblige them to discover it; and to avoid all this they are contented to live in the most pinching poverty. Few situations appear more adapted to depress the human mind, and render mankind completely miserable. Yet it is here far from producing this effect; for, from their unparalleled patience, peace and contentment reign in every family; and it is even said, that their oppression and misery have not yet obliged them to introduce into their language any expressions of discontent, or repining at their unhappy condition; much less of curses and imprecations against the authors of their distress. On seeing a circle of them sitting at the doors of their poor cottages almost naked, some either smoking or telling merry tales; others singing or dancing, and when weary, lying supinely on the ground; one would conclude them to be a happy, though an indolent people. Besides, they seldom quarrel or fight among themselves; and, when they do, they use no other weapons but their fists.

Those we have here described live chiefly in the country, where they are employed in agriculture and the breeding of cattle; but those who live in the sea-port towns along the coast, follow a va-

riety of trades and manufactures and even carry on some commerce by sea and land; but, though these are less poor, they are equally oppressed with taxes, and, if possible, more cruelly treated by their lordly masters; for the least mark of disrespect to the meanest soldier is sufficient to procure them, if poor, the chastisement of the bastinado, or if rich, a heavy fine.

With respect to the Turks, these are by far the fewest in number, and also the worst and most contemptible: they being a wretched crew of indigent, ragged, thievish, and idle fellows, enlisted in and about Constantinople, and sent into Barbary once in three years, to recruit the soldiery. These wretches, being furnished with a gun, a sword, and other arms, are incorporated into some regiment, and instantly obtain a vote and share in the government; and from thence are raised from one post to another, till they obtain those of admiral, vizier, and even bey: in all which, they treat with insupportable insolence their Moorish vassals; the wealthiest of whom tremble at the sight of a Turkish soldier.

This will be sufficient to give some idea of the inhabitants of Barbary in general, particularly of the Moors in those countries, where they are in subjection to the Turks: but it will be proper now to give some account of the Moors of Morocco, where they may be considered as masters, not being subject to any foreign power.

The Moors of this empire are chiefly descended from those who were driven out of Spain; and though, in general, poor and oppressed, are very numerous, especially on the sea-coast; but have no trading vessels, nor carry on any immediate commerce with foreign nations. The men are

of a swarthy complexion, intermixed with a race of well-looking people, somewhat fairer than the rest.

They wear short shirts with very broad sleeves, that sometimes hang down, but are more frequently tucked up to keep them cool. They have linen drawers tied about their waist next the skin; and, over their shirt, wear a kind of waistcoat made to fit close to the body, and fastened with small buttons and loops, set close together, and often embroidered with gold or silver thread. Round the waist, they tie a scarf of silk or stuff, in which they stick large knives, with the handles either of some valuable metal, or ivory inlaid, and their sheaths are tipped with silver. Their outer garment is either a piece of fine white woollen stuff, five or six yards in length, and about one and a half broad, which they wrap round them above and below their arms: or a kind of short cloak made of cloth or woollen napped stuff, with the bottom and sides edged with a deep fringe; and at the neck behind hangs a peaked hood, with a tassel at the end, with which they can cover their heads, to keep off the weather. They have always their heads shaved, and wear a little red cap, which they make into a turban by rolling muslin about it; but, when they go into the country, they wear a cane hat to keep off the sun. They all go bare-legged, but wear slippers of red or yellow leather, without heels. The Moors of Morocco in general dress after this manner, with no other difference than in the richness and fineness of the stuffs, only the upper garment worn by the poor, is a coarse, thick woollen cloth, with holes at the top, instead of sleeves, to put their arms through; this reaches to their knees, and hangs loose about their bodies.

The women, when they go abroad, dress nearly like the men, their upper garment being the cloke just mentioned, with the hood of which they cover their heads, bringing it down over their foreheads close to their eyes; and underneath tie a piece of white cloth to hide the lower part of the face. It covers all but their legs, which, when they are at home, or pay a visit from the tops of their houses, are generally naked; only some ladies of superior rank, have their drawers so long, that they reach to their feet, and hang in loose folds about their legs: They wear the same kind of slippers as the men; within doors they have only a single binder about their foreheads; and their hair hangs behind in two large plaits at full length. They also wear at home a vest, open from the bosom to the waist, to show their embroidered shifts. They have a short petticoat over their drawers, large earrings in their ears, with bracelets on their arms and legs.

The Moors of Morocco are generally lusty, strong-limbed, active, laborious, and endure with surprising resolution the heat of summer, and the cold rains of winter. Thus a messenger will go from Tetuan to Mequinez, which is a hundred and fifty miles, for a Barbary ducat, worth three shillings and six-pence; and when caught in a storm of rain, will only look out for a bush, or a high stone, and sitting down on his hams, with his back towards it, remain the whole night in that posture; or if the weather be fair, will wrap himself up in his clothes, and pass the night sleeping on the grass. It is said that some footmen will go a hundred and eighty miles in three days, they ford the rivers even in the depth of winter, if

not deterred by the rapidity of the current; and when they take a journey that will last seven or eight days, carry only a little meal and a few raisins or figs in a small goat's skin. They have no posts for carrying letters, which are sent by these footmen, who are almost as expeditious as horses: nor have they any kind of wheel carriage; for they remove their light goods from place to place, on horses; but make use of camels when they convey large quantities of corn, hides, or the like, a considerable distance.

When the inhabitants of Morocco are in their houses, they are always sitting or lying on mats: and if they ever go out on foot, it is never farther than to make a visit, unless their business requires it; but those who have leisure, daily spend five or six hours before their doors, sitting on their hams, for they think nothing can be more ridiculous than for any one to walk up and down a room. "Why," say they, "should a man remove from one end of a room to the other, without the least reason for it? Can any thing be more absurd, than for him to go to the other end merely to come back again?"

In no part of the earth is there a more despotic government than that of Morocco; their religion, laws, customs, and prejudices, all conspiring to render the monarch absolute, and to confirm the subjects in the most abject slavery. The emperor, who has the title of sharif, has not only an uncontroulable power over the lives and fortunes of his subjects, but even over their consciences; for, as the successor of Mahomet, he is the principal interpreter of the Koran. His laws are therefore received with implicit and religious submission.

His subjects are even bred up with the notion, that those who die in the execution of his commands, are immediately admitted into paradise; and those who have the honour to die by his hand, to a still greater degree of happiness there. The tyranny of the emperors of Morocco is chiefly exercised on the Moors and slaves; for the Arabs who pay an involuntary tribute, are not to be treated with such rigour. The zeal and attachment of the negroes, who enjoy the principal power at court, entitle them to better treatment; and the monarch, who commits his person, treasure, and concubines to their care, encourages them, by his own example, to tyrannize over and oppress the natives.

The Moors here, like the other Turks, pay the utmost regard to the name of God, and express great abhorrence of the impious custom, so common among many who call themselves Christians, of swearing upon the most trivial occasions, which the greatest resentment cannot provoke them to; much less to use blasphemous and indecent expressions, in speaking of the Supreme Being; nor are they ever guilty of duelling or murder; they never kill but in war; and it is with the utmost reluctance that they ever engage in battle with those of their own religion.

The kingdom of Algiers is inhabited by many different people, but the most numerous are the Moors and Arabs. The Moors, thus called from Mauritania, their ancient country, are of two sorts; those who inhabit the cities and towns carry on some commerce either by land or sea; and also engage in trades and manufactures. The other sort are of the wandering kind, and are divided into a prodigious number of tribes, distinguished

either by the names of their chiefs, or the places of their abode, or both; each forming a kind of itinerant village, or adowar, as they term it; and every family living in a particular tent, or portable hut. They live solely on the produce of such lands as they farm from the other Moors, and pay their rent in kind, either in corn, fruit, herbs, honey, or wax; selling the remainder to the inhabitants of the neighbouring towns. They are skilful in the choice of the most advantageous soil; and take great care to avoid the neighbourhood of the Turkish troops. Each adowar pays the Turkish dey a tax in proportion to the number of its families, their chief being answerable to him; and the whole community for each individual. These wandering Moors are generally strong, warlike, and skilful horsemen, valuing themselves on not being confined to towns, like the other Moors of Algiers, whom they regard as slaves always at the mercy of the Turks; so that if they receive any insult or ill usage from the Turkish aga, they instantly return it in a hostile manner, till the town Moors, who are unable to subsist without being supplied with provisions from them, have mediated a peace. To keep up this martial spirit, the chief persons of every adowar meet every evening in a circle round their chief, to discuss public affairs; after which they perform their usual exercises on horseback, in which they are so dexterous, that they can take up any thing from the ground with their lance, in full speed. Their usual weapons are a broad cutlass, which hangs just below the left elbow, and a short lance, which they carry in their hand. These wandering Moors are so addicted to robbery, that it is dangerous travelling at a distance from the towns, without a guard or at least

one of their marabuts or priests; for as they consider themselves as the original proprietors of the country, and as dispossessed by the rest of the inhabitants, they think they have a right to make reprisals.

The Arabs who are scattered through all the provinces, not only of the Algerine dominions, but through the other parts of Barbary, are descended from the Mahometan Arabians, who once overran this part of Africa; from which being driven by the Turks, they fled to the mountainous parts to save themselves, their cattle and effects; where they have ever since enjoyed their liberty; and by their labour and industry, have improved these barren and desert lands into pleasant and fertile territories. They are divided into a multitude of little governments under their respective chiefs; and value themselves highly on their having preserved their blood untainted by a mixture with other nations; expressing the utmost contempt for those, who preferring their ancient habitations, in cities and towns, submitted to a foreign yoke, whom they therefore, in derision, call citizens and courtiers.

In this general view of the inhabitants of Barbary, it will doubtless be expected that we should not leave Algiers, without taking some notice of its government and treatment of the Christian slaves.

The dey of Algiers pays no other revenue to the grand signior, than a certain number of handsome youths, and some presents annually sent to the Porte. He is chosen out of the army, in which the most inferior person has an equal right to that dignity with the highest; for every bold and aspiring soldier, though but just taken from the plough,

may be considered as heir apparent to the throne. Indeed the dey of Algiers is never ashamed of the meanness of his extraction; thus Mahomet basha, who was dey of Algiers, when Dr. Shaw was there, entering into a dispute with the deputy consul of a neighbouring nation, said, "My mother cried sheep's trotters, and my father neats tongues, but they would have been ashamed to have exposed to sale so worthless a tongue as thine." He who aspires to this high rank, seldom waits till sickness or age has removed the present possessor; it is sufficient if he be able to protect himself with the same scymetar which he sheathes in the bowels of his predecessor; for scarcely one in ten of them dies in his bed. Even the few, who have made a more peaceful end, cannot be said to have owed it to the high regard the army had for them, but rather to their foresight and good fortune, in nipping new insurrections in the bud. Neither their tyranny, mal-administration, nor avarice, serve to hasten their ruin; nor can the contrary virtues prevent it. The want of success in the wisest and best conducted enterprize is sufficient to cause an insurrection, and cost the most sagacious dey or officer his life; nay, they are often slain from no other motive than a desire of change, raised by some bold aspirer to the supreme power. The deys, though they generally act in the most arbitrary manner, are frequently obliged to assemble and consult the divan on important affairs, in order to screen themselves from popular discontent; though, the chief members being for the most part their creatures, they may be said to act with a despotic authority, there being no appeal from this supreme tribunal. As the lowest soldier has a right to vote in the election of a dey, as well as the highest; and as there are

usually several candidates for that dignity, the election is seldom carried on without some tumult, if not bloodshed; but the choice is no sooner fixed, than he who is elected, is saluted by the words "Alla-Barik," or, "God prosper you;" and he is immediately invested with the caftan or insignia of sovereignty; while the cadi, or chief judge, addresses him with a congratulatory speech, generally closed with an exhortation, that, as it has pleased the Almighty to raise him to the supreme dignity of the kingdom, it is his duty to govern it with justice and equity; to preserve the rights and liberties of his new subjects, and carefully to promote their safety and welfare.

The Algerines are more formidable at sea than any other power along the coast of Barbary; and, though the commanders of their ships are not allowed to have any concern in affairs of state, or in the election of the dey, yet they are held in great esteem. However, their navy seldom exceeds twenty ships; only one of which belongs to the government, and is assigned to the admiral, who has particular store-houses; all the rest belong to private persons, and have likewise their store-houses well provided, the captains never failing to strip their prizes of all the conveniencies they find in them. It is not at all surprising, that a people, who consider all the rest of the world as their tributaries or slaves, should be so addicted to piracy, and treat their captives with the utmost arrogance and inhumanity. The captains of these ships have usually a share in those they command, if they are not the sole owners; and accordingly may cruize when they please; but are obliged, when required, to attend the service of the state, in transporting men or provisions, at their own

expence. They have also some experienced officer, appointed by the dey, without whose consent they can neither give chace, return, nor punish their sailors. On re-entering the port, this officer makes his report how the captain has behaved; and the latter, if found guilty of any misdemeanor, is sure of being chastised. The captain must also give an account of his success to the government, which claims an eighth part of all the prizes, slaves, and cargo, the rest being divided among the proprietors and ship's company, in such proportions as are agreed upon between them.

Christians are no sooner made prisoners, than the Corsairs enquire into their country, condition, and quality, which is often done by bastinadoing them, to extort a true confession; after which having stripped them almost naked, they are brought to the palace of the dey, to which the European consuls repair, in order to examine whether any of them belong to their respective nation; and, if any of them were only passengers, to reclaim them; but, if it be proved that they have served, for pay, any nation at war with Algiers, they cannot be released without paying their full ransom. Of these the dey has the choice of every eighth man, and therefore chuses those who have some useful trades or professions; as surgeon's mates, carpenters, &c. because they sell for a higher price; and, if of quality, for a still higher. The rest, who are left to the owners and captors, are led to the bezistan, or slave-market, where a price is set upon them, according to their ability, profession, age, and strength. From thence they are led to the court before the dey's palace, where they are sold by auction; and whatever is bid above the price set upon them, belongs to the govern-

ment. These unhappy men have then an iron ring put round one of their ancles, and a long or short chain fastened to it, according as they imagine them more or less inclined to attempt their escape: but if any of them can procure a little money, they are allowed to keep wine cellars; but must pay a certain tribute to the dey, and by this means many of them grow rich enough, in time, to purchase their liberty, notwithstanding their being also obliged to contribute towards the maintenance of their poor sick brethren, and of the christian chapels allowed for their use. With respect to those who can put themselves in no way of living, they are treated with great severity; they both fare and work hard all day, and at night are locked up in public prisons, where they lie on the bare ground, without any other covering than the sky, and are sometimes almost stifled in mud and water. In the cities and towns, they are put to the lowest and hardest kind of labour; while in the country they are sometimes made to draw the plough instead of horses; and in all other respects are treated with such inhumanity, as would there be severely punished, if exercised on brutes.

With respect to the distribution of justice, the cadi is the judge, but all affairs of moment are laid before the dey, or in his absence, before a principal officer of the regency, who sits in the gate of the palace for that purpose. Here are no attorneys or counsellors to retard the administration of justice. When the women have any suit, they come veiled, crying aloud, "Justice in God's name:" and these are generally accompanied with a crowd of their own sex, to back the petition with their joint outcries. Justice is, however, administered in the most venal manner, in the pu-

nishment of offenders, particularly when they are Turkish soldiers, who behave with the utmost insolence, and commit acts of violence with impunity; for they seldom suffer for any crime except that of rebellion, in which case they are usually strangled with a bowstring. However, for smaller offences, they are sometimes either bastinadoed, fined, or their pay stopped, and if officers, reduced to the rank of common soldiers.

A Jew or Christian guilty of murder, or any other capital crime, is burnt alive, without the gates of the city; but for the same crimes the Moors and Arabs are either impaled, hung up by the neck over the battlements of the city, or thrown upon hooks fixed in the walls below, where they sometimes hang thirty or forty hours in the most dreadful agonies before they expire.

Clipping or debasing the coin is punished with the amputation of the offender's hands. Moors, found guilty of robbery or burglary, have their right hand cut off; and, it being hung about their necks, they are made to ride through the city on an ass, with their faces towards the tail. Jews and Christians, who have presumed to speak any thing against Mahomet, must either turn Mahometans, or be impaled. The ancient inhuman custom of sawing in sunder, is still retained: this is done by laying the condemned person between two boards of the same length and breadth, and beginning to saw at the head. Small offences are punished with the bastinado.

We shall now lead the reader to a view of the Tunisians, who are more polite and civilized, and entirely free from that haughtiness, insolence, and cruelty, for which the rest of the people in Barbary are justly censured. They are more kind to

their slaves, and are in other respects very courteous to strangers; and indeed this nation has for many years been more intent upon trade, and the improvement of manufactures, than upon plundering and cruizing.

The greatest part of the Moorish women of Tunis would be esteemed beauties, even in England; and their children have the finest complexions of any nation whatever; but the boys are so exposed to the sun, that they soon attain the swarthiness of the Arabs; but, as the girls keep more at home, they preserve their beauty till they are thirty, when they are generally past childbearing. One of these girls is sometimes a mother at eleven, and a grand-mother at two or three and twenty; and, as they generally live as long as the Europeans, they sometimes see their children of many generations.

The merchants, officers, doctors, and scholars, here, appear neatly dressed when they go abroad; and behave with such gravity and good manners, that, though the streets are crowded with people, one may go from one end of the city of Tunis, without fear of being insulted by the Turks, as one is sure to be at Algiers. The taverns kept by the slaves are better regulated, and those slaves are allowed to chastise even a Turk, if he drink too much, or behave insolently, and even to pull off and keep his turban, till he has paid his reckoning. They sell none but white wine, which the country produces in great plenty, and is very cheap and good. It is customary in the taverns at Tunis, when a person calls for a quart of wine, to set before him three or four dishes, of meat or fish, with salad and other sauce; and, when he goes away, he pays only for the wine at a common price. Some of the graver people, who have

no constant employment, spend the day, either in conversing with one another in the barbers shops, in the bazar, or at the coffee-house; but many of the Turkish and Moorish youths attend their concubines, with wine and music, into the fields, or make merry at one of the public taverns.

As to the Arabs of Tunis, their lives are one continued round of idleness or diversion; for, when they are not called abroad by any pastime, they spend the day in loitering at home, smoking their pipes, and reposing themselves under some neighbouring shade: yet the Arab places his highest satisfaction in his horse, and is seldom in high spirits, but when hunting or riding at full speed. Hawking is another of their principal diversions: and those who take delight in fowling, instead of springing the game with dogs, shade themselves with a piece of canvas stretched upon two reeds, and painted with the figure of a leopard. The fowler, thus concealed, walks through the breaks and avenues, looking through some holes a little below the top of the skreen to observe what passes before him. On the approach of the canvas, the partridges and some other birds are observed to covey together, though they were before at some distance from each other; and the woodcock, quail, and some other birds, that usually feed in flocks, will, on seeing it, stand still, with a look of astonishment. By this means the sportsman has an opportunity of coming near them, when resting the skreen upon the ground, and directing the muzzle of his piece through one of the holes, he shoots at a whole covey at once.

The Arabs who live in tents, still retain many of the customs we read of in sacred and profane history; for, excepting only their religion, they

are the same people they were several thousand years ago. Upon meeting each other, they still use the primitive salutation, "Peace be with thee." The inferiors show their respect to their superiors by kissing their feet, knees, or the borders of their garments. In saluting each other, they clap their right hand on their breast; and at their great solemnities, the wife compliments her husband by kissing his hand. Persons of the highest character, like the ancient patriarchs, and the heroes of antiquity, perform what we term menial offices. The greatest prince, when visited by a stranger, is not ashamed to fetch a lamb from his flock and kill it, while the princess makes haste to prepare her fire and kettle, and then dresses it. The custom of walking either barefoot, or with sandals, renders the compliment of washing the stranger's feet still necessary: this is done by the master of the family, who first presents himself, and is always the most officious in this act of kindness. When his entertainment is ready, he would think it a shame to sit down with his guests, instead of which he stands all the time, and waits upon them: yet notwithstanding this respect, there have been instances, in which men have been the next day overtaken and robbed, by the very persons who entertained them with such hospitality the night before.

While the lazy husbands take their repose under some neighbouring shade, and the young men and maidens attend the flocks, the wives are all day employed in grinding at the mill, dressing provisions, or working at the looms; and to conclude the day, they still, as in ancient times, take a pitcher or goat-skin, and, tying their sucking children to their backs, trudge two or three miles

to fetch water. Yet notwithstanding all this business, they will not lay aside any of their ornaments, neither their nose jewels, their bracelets for their arms and legs nor their ear-rings; all of which are very cumbersome; nor will they omit tinging their eyes with lead-ore; so prevalent is custom, and so fond are even the ladies in Barbary of appearing in the fashion.

## ARTS, MANUFACTURES, &c.

AS to the liberal arts and sciences, they have been for many ages, and still continue to be, in a low condition amongst the Mahometans; and no wonder this is the case more especially in Barbary, since the roving life of the Arabs, and the perpetual grievances the Moors meet with from the Turks, will not permit either of them to enjoy that liberty, quiet, and security, which have at all times given birth and encouragement to learning. As for the Turks, they are generally of such turbulent and restless dispositions, or so deeply engaged in trade and the improvement of their fortunes, that they have no taste at all for literature; being astonished, as they often told our author, how the Christians can take delight, or spend so much time and money in the empty amusements of study and speculation.

Morocco leather, the preparation of which we have heretofore described, is one of the most curious manufactures of Barbary. Carpets are another branch of the trade and manufactures of that country. They are made indeed of coarser materials, and are not so beautifully designed as those of Turkey; but being cheaper and softer, they are pre-

ferred to lie upon by most sorts of people. At Algiers and Tunis they weave velvets, taffaties, and several kinds of silks; and all over these kingdoms they make a coarse sort of linen, but Susa is noted for producing the finest. These manufactures however, both of silks and linens, are so inconsiderable, that they scarcely make enough for their home consumption, the deficiency being frequently supplied from the Levant and Europe.

The chief manufacture among the Arabs, is the making hykes, (as they call woollen blankets) and webs of goats-hair for their tents. This work is done only by the women, who make no use of a shuttle, but conduct every thread of the woof with their fingers. One of these hykes is usually six yards long, and five or six feet broad, serving the Arab for a complete dress in the day, and for his bed and covering in the night. They join together the two upper corners with thread or a wooden bodkin, and, these being first placed over one of their shoulders, they afterwards fold the rest of it round their bodies; but it is a troublesome kind of garment, being frequently disconcerted and falling upon the ground, so that the person who wears it is often obliged to tuck it up and fold it anew.

In most of the towns and villages there are looms for weaving the hyke, and also the burnoose as they call their cloke or upper garment. This is of one piece, made narrow about the neck, with a cape to cover the head, and wide below like a cloke. The cape, however, is only occasionally made use of during a shower of rain, or in very cold weather. Some of these garments are fringed round the bottom.

Dr. Shaw thinks the burnoose is probably the same with our Saviour's cloke, which was wove

without seam from top to bottom; and with the clothes of the Israelites wherein they folded up their kneading troughs, &c. as the Moors and Arabs do, to this day, things of like burthen and incumbrance.

The girdles of the Arabs are usually of worsted, very artfully woven into a variety of figures, and made to wrap several times about their bodies. One end of them, being doubled and sewn along the edges, serves for a purse; and they make a farther use of them, by fixing in them their knives, poniards, and inkhorns.—The Moors and Turks in general, with some of the richer clans of Arabs, wear upon the crown of their heads, a small hemispherical cap of scarlet-cloth, which Dr. Shaw takes notice of as another chief branch of their woollen manufacture. The turban, which is a long narrow web of linen, silk, or muslin, is folded round the bottom of these caps, and distinguishes, according to the order and fashion of the folds, the several orders of soldiers not only from the tradesmen and citizens, but from one another.

The greatest part of the manufactures above-mentioned are consumed at home; and it may be farther observed, that the inhabitants of Barbary send few of their commodities to foreign markets. Oil, hides, wax, pulse, and corn, are the general produce of the kingdoms of Algiers and Tunis; but the first are either in such small quantities, or so much wanted at home, that corn may be reckoned the chief or only commodity for exportation. Formerly, indeed, seven or eight thousand tons of oil have some years been shipped off by European merchants from those kingdoms; but there is so great a consumption of oil among the natives themselves, that the Algerines will seldom permit it to

be exported into Christendom. Greater quantities are produced near Tunis and Susa; but then the Moorish merchants alone are allowed to buy it, abliging themselves at the same time to dispose of it at Alexandria, Damietta, or some other port of the Ottoman dominions.

The western Moors are said to carry on a trade with some barbarous nations bordering on the river Niger, without seeing the persons they trade with, and without having once broke through that original charter of commerce, which from time immemorial has been settled between them. The method is this; at a certain time of the year a numerous caravan sets out on this journey, carrying along with them strings of coral and glass beads, bracelets of horn, knives, scissars, and other trinkets. When they arrive at the place appointed, they find, in the evening, several heaps of gold-dust, lying at a small distance from each other, against which the Moors place so many trinkets as they judge will be taken for the value. If the Nigritians, the next morning, approve of the bargain, they take away the trinkets and leave the gold, or else make some deductions from the heaps; and thus they transact their business without the least instance of dishonesty or perfidiousness.

## CHAP. III.

### OF NEGROLAND AND GUINEA.

*Situation, Climate, Soil, &c.*

NEGROLAND is an extensive country of Africa, lying next to Guinea, and reaching from eighteen degrees of west to a hundred and fifty degrees of east longitude, and from ten to twenty degrees of north latitude. It is bounded by the great desert of Zaara on the north; by unknown countries on the east; by Guinea on the south; and by the Atlantic ocean on the west; and is watered by the great river Niger which runs through it from east to west.

The entrance into the Niger or Senegal river is narrow and difficult; but after sailing up eight or ten leagues, it is found broad and deep; and, excepting about five leagues on each side above the mouth, which consists of sandy and barren ground, the banks are covered with stately trees, and the country appears tolerably fertile.

To the east and north east of the island of Senegal, the country, as far as it is known, is over run with woods and marshes; the Senegal, Gambia, and Sherbro (which are regarded as branches of one immense river) passing through it in their way to the Atlantic Ocean. During the rainy months, which continue from July to October, they lay the whole country under water; and indeed the sudden rise of these rivers is incredible to persons who are unacquainted with the violent rains that fall between the tropics. At Galam, nine hundred

miles from the mouth of the Senegal, the river rises gradually, during the rainy season, above twenty feet perpendicular over part of that flat coast, which of itself so freshens the water, that ships laying at anchor, at the distance of three leagues from its mouth, generally make use of it, and take in water there for their voyage home. When the rains are at an end, the intense heat of the sun usually dries up those stagnating waters which lie on the higher parts, and the remainder from lakes and marshes, in which are found all sorts of dead animals. At this season the winds blow so hot from the land that they may be compared to the heat proceeding from the mouth of an oven, and bring with them an intolerable smell. The lions, tigers, and other wild beasts, then resort to the river, and seek a respite from the intolerable heat, by steeping their bodies under water: the birds, also, soar to an immense height, and fly a prodigious way over the sea, where they continue till the wind changes.

Guinea is a large tract of country on the western side of the continent of Africa; extending from three to four thousand miles along the coast, beginning at the river Senegal, in about seventeen degrees of north latitude.

As all this country lies between the tropics, the air is excessively hot; which together with the coolness of the nights, the frequent thick sulphureous mists and the periodical rains, render it very insalubrious to Europeans, though the natives enjoy a tolerable state of health. The soil, for the most part, is rich, deep, and so amazingly fertile, that it produces, almost without cultivation, a variety of grain, fruit, herbs, and edible roots, all of which are excellent in their respective kinds.

It is observable that the winds on the coast of Guinea are directly contrary to the trade winds, and blow from west to east, except in the rainy season between the vernal and autumnal equinox, when violent hurricanes, attended with thunder and lightning, proceed from the south, from whence the storms blow with great violence; on which account the ships on the coast are in danger of being wrecked on the shore, on which a surf constantly beats in the calmest weather, that renders landing, not only very difficult, but dangerous. However, the air is for the most part pleasant and refreshing; but has something so peculiar in it, that keys will rust in a man's pocket.

## MINERALS, FOSSILS, &c.

BOTH Negroland and Guinea contain mines of iron, copper, silver, and gold, though we are not certain whether many of them are wrought. Mr. Moore informs us, that the gold which the merchants bring down to the European traders on the river Gambia is of a very good quality, and finer than the sterling gold. They bring it in small bars, thick in the middle, and turned round into rings, from ten to forty shillings value. These merchants are blacks of the Mandingo race, and are called Joncoes. They are very unwilling to say much of the inland countries; and all our author could gather concerning the gold was, that it is not washed out of the sand, but dug out of mines in the mountains, the nearest of them at least twenty days journey from Cower. In the country where the mines are, they say there are houses

built with stone and covered with terrace, and that the short cutlasses and knives which they bring down with them are made there, the steel whereof is excellent.

As to Guinea, it is supposed to contain more gold than any other part of the world, there being great quantities of it washed down from the mountains, and found in the rivers. By violent rains and torrents pieces of rocks are sometimes removed, and bits of this precious metal picked out of the clefts and cavities where it lay concealed; but much more is washed down in little particles, no bigger than sand, into the rivers, which is called gold-dust, as the former is called rock-gold. The European merchants and factors never go up into the country to purchase gold, but the trading negroes bring it to the forts and factories, and on board the European ships, great part of it coming two or three hundred miles or upwards. It is said the negro merchants mix copper, and other ingredients of less value, both with the rock-gold and gold-dust, in which mode of cheating they are very proficient. The value of the gold brought from the Guinea coast, one year with another, by all the European nations that trade thither, is supposed to amount to about three hundred thousand pounds sterling; of which the English may import one third, the Dutch another, and the French, Danes, Portuguese, and Prussians the remainder.

In the rainy season, after a wet night, the seashore is covered with people, mostly women, each having a couple of bowls made of calabashes, the largest of which they fill with such earth and sand as the floods have brought down from the mountains; and this they wash with many waters, often

turning the bowl round, till the earth and sand be all washed away, except two or three spoonsful at the bottom, which they carefully put into the other bowl; for the gold, if there be any, sinks to the bottom by reason of its weight. Thus they continue washing the sand till the small bowl is pretty well filled with the sediment, which they carry home, and search diligently. Sometimes they find as much gold as is worth a shilling, sometimes ten times that quantity, and very often none at all.

On the south side of the Gambia, not far from the sea-coast, there is a negro nation which F. Labat calls Balantes, in whose country the Portuguese imagined there were mines of gold, because having bought some fowls of the Balantes, they found grains of gold in most of their gizzards. This induced the Portuguese to attempt the conquest of that country, and accordingly, in July 1695, they landed there without opposition; but it being then the rainy season, they had such violent showers that all their arms and ammunition were spoiled, and the Balantes attacked them so briskly with their hassagays and sabres, that they were completely routed, and obliged to retire, leaving behind them a great number of their negro allies with a considerable part of their baggage, arms, and ammunition.

The same author informs us, that in the country of the Saracoles there are several hills of a beautiful marble of different colours, but chiefly red, from whence it would be no difficult matter to bring it to Europe. He also mentions another mountain of red marble mixed with white veins, which are so bright and shining that they appear like silver This marble is so hard, that it is used instead of flints by the natives.

The natural salt, formed at the bottom of certain pools near the sea, is a curiosity mentioned by the same author. He reckons eight of these pools, wherein the salt is naturally formed at the bottom of the water, like a scaly stone; which being broke with long iron crows, the salt rises up to the surface, and the natives skim it off, and dry it in the air. Whatever quantity they take, it does not appear to diminish in the least; but this salt being very corrosive, is only used to cure raw hides.

## VEGETABLES.

THE Foulahs, a people who apply themselves most to husbandry, plant tobacco and cotton near their towns, which they fence in together. Beyond this enclosure are their corn fields, of which they raise the four kinds usual all over the countries bordering on the Gambia; viz. Indian corn or maize, rice, and the larger and lesser Guinea corn. They have no wheat, barley, rye, oats, nor any other European grain; but they have a kind of pulse between the kidney bean and the pea, together with yams and potatoes. The Indian corn they set in holes, three or four together, about four feet distant from each other, so that it grows like hops. It shoots up to the height of eight or ten feet, forming a large cane, with the ears growing out of the sides. The rice, which they esteem their choicest food, they set in rills, as we do peas; it requires wet grounds, and its ears are like those of oats. The large Guinea corn is round, about the size of our smallest peas. This they sow by hand, as we do wheat and bar-

ley; and it runs up to nine or ten feet high, though a small reed, the grain growing in a large tuft at the top. The lesser Guinea corn is sown in the same manner, and shoots to the same height; but the reed is larger, on the top of which the corn grows in a head like a bulrush. These are all of the bread-kind that are cultivated on the river Gambia; and, indeed, the natives make little bread, but use the flour of the several grains to thicken their liquids. The Indian corn they use mostly green, parching it in the ear upon coals, which gives it a taste like green peas. They chiefly boil their rice as the Turks do; and make flour of their corn by pounding it in wooden mortars.

The palm-tree in Negroland (perhaps a different species from any yet mentioned) Mr. Moore describes to be a fine straight tree, growing to the height of sixty, seventy, or a hundred feet. From this tree the natives extract a sort of whitish liquor like whey, called palm-wine, by making an incision at the top of the trunk, and inserting a pipe made of leaves, through which the liquor runs into gourd-bottles. "This wine," says our author, "is pleasant to drink as soon as drawn, being exceeding sweet, but it is apt to disorder the bowels. In a day or two, however, it ferments, and grows hard and strong, like Rhenish wine; at which time it may be drank without any dangerous consequences. It is very surprising to see how nimbly the negroes climb up these trees, having nothing to assist them but a piece of bark made round like a hoop, with which they enclose themselves and the tree, and so, setting their feet against the tree, and their backs against the hoop, they ascend very swiftly;

sometimes, however, they fall down and lose their lives, either by missing their footing, or by the breaking of the hoop.

What is called the ciboa-tree seems to be another species of the palm, growing, like that, to a great height, and yielding a wine in the same manner, but not quite so sweet as the former. The trunk of this tree, as well as the palm, is full of sap when young, but very tough when old; and the leaves that grow on the top are of great service in covering of houses.

There is also a species of palm growing in these parts of Africa, which yields an oil called palm-oil, or oil of Senegal; it is of an orange colour and fragrant smell; and is obtained from the pulp of the fruit by adding to it a large quantity of boiling water, and stirring them in a kettle over the fire till they are completely mixed. Then taking the kettle off the fire, they let the matter stand till its more solid parts subside to the bottom; and, having skimmed off the oil that floats on the surface, they repeat the operation by pouring on it more boiling water. This oil is of the consistence of butter, and used as such by the Africans, who also burn it when old. In Europe it is esteemed a good remedy against cold humours, and is said to strengthen the nerves, give ease in pains of the gout, remove weariness, and relax contracted parts.

Mr. Stibbs has given a description of a tree called pau de sangue, or blood-wood, from a reddish gum which it yields. This tree grows plentifully all up the river Gambia, and is a hard wood, of a beautiful grain, and polishes finely, so that it is very proper for cabinet-work: but as it does not grow to any great height or bulk, it

is not easy to find one that will produce a plank of fifteen, or sixteen inches broad. It grows generally in a dry rocky soil, on the sides and tops of hills; and, when the wood is first cut, it has an agreeable smell. Upon wounding this tree, the juice oozes out in drops like blood, which, joining together, and being dried by the sun, congeal into lumps. Mr. Moore has had some as large as pullets eggs; but he gives no account of the trees growing so plentifully near the river as Mr. Stibbs represents. They seem rather, according to Mr. Moore, to be found in great abundance about four days journey from Fatatenda, one of the company's factories on the Gambia, about five hundred miles from the mouth of the river.

The principal commodity on the banks of the river Senegal is gum Senegal, which is used both in medicine, and in many arts and manufactures, particularly by silk-weavers, dyers, and painters in water-colours. The tree from which it is produced, is described by Lebat as a species of acacia; being small, prickly, full of branches, and covered with very narrow leaves, moderately long, and of a perpetual verdure. According to some authors, it bears a white flower composed of five leaves, which form a kind of cup; but other naturalists represent it, as formed of one leaf, in the manner of a funnel, and the flowers are in clusters; the flower is succeeded by a pod, three or four inches long, filled with small round, hard and black grains, which serve to propagate the species. Of this kind of gum-tree, there are three forests, all in the desert north of the river, and nearly at equal distances from it. Every year produces two crops of gum; the first in Decem-

der, and the other in March. The first tears or exudations are the largest, driest, and most pure, with every other advantage required in this drug; and the other more soft, glutinous, and impure. The December crop is gathered after the rains have ceased, and the moisture of the earth has rendered the sap more abundant; but that in March is procured by making incisions in the trees, which have then too little vigor to produce it of themselves. The natives who feed upon this gum after it is dissolved in milk, sell it by a cubic measure called a quintal, which holds about two hundred weight; and this they exchange for goods of about two shillings value. The white and smaller tears of this gum are often sold for the true gum arabic, and indeed their properties and qualities are much the same.

The banana-tree bears a fruit six or seven inches long, covered, when ripe, with a yellow and tender skin. Its leaves are two yards long, and about twelve inches wide; and the fruit grows upon a stalk about six yards high, each stalk bearing only one single cluster or bunch, which perhaps consists of forty or fifty bananas. When the bunch is gathered they cut off the stalk, otherwise it would bear no more fruit. The pulp of the fruit is as soft as marmalade, of a very pleasant taste, and said to be very nourishing. The fruit of the plantain-tree is not much unlike the banana either in taste or shape, only it is somewhat longer.

Here are also guavas, which resemble peaches, only the outside is much rougher, and there is no stone within, but kernels less than those of apples. This fruit is reckoned an excellent medicine against the flux.—Physical nuts and tabacombas,

are likewise found about the Gambia, the former of which contain three or four small kernels, whereof one or two are a cathartic-dose; but they are apt to cause sickness, though they are frequently used by the natives.—The tabacomba is almost like a bon-chrêtien pear, with a rind resembling that of a pomegranate. When it is ripe it opens of itself, the pulp appearing of a reddish colour, with large stones, and very insipid.

We shall next mention Guinea pepper, from whence part of that country, where it grows plentifully, is called the grain coast. Abundance of it grows likewise in America, where it is much esteemed; and it is now cultivated pretty commonly in France. The shrub that bears it flowers in our gardens in August, and produces red pods about the latter end of September and October, in which the pepper is enclosed; but the plant perishes with the first frost, so that it must be sown annually. The skins boiled, and used as a gargle, assuage the tooth-ache; and a cataplasm made of the seeds mixed with honey, and applied to the throat, is said to be good for a quinsey; otherwise it is not much used in medicine.

The tree called agon, resembles a beech, and is extremely poisonous. Its fruit is of an oblong form, like the pod of a bean; and is distinguished by its size into three kinds, all of which have the most malignant qualities. Within the pod are enclosed four of five square beans, each encircled with a hard rind, and containing a yellow kernel, from whence the poison is extracted. These are used by the natives in poisoning their arrows, and nothing can more effectually answer

that purpose, as the smallest quantity, being infused into a wound, proves fatal.

## ANIMALS.

THE parts of Africa we are now treating of abound with elephants, lions, and other wild beasts already described. Mr. Stibbs tells us, that one morning, as he was examining a hill in the vicinity of the Gambia, he found near the top a lion's den, and soon after heard the lion roaring at no great distance, which occasioned him to make haste to the bottom of the mountain. The den, he says, was cunningly chosen in a solitary place, about three quarters up the hill, at the foot of a precipice in the side of a rock. It was difficult of access, but large and commodious, yet undoubtedly formed by nature. The track to it, with the footsteps, excrements, and even some of the hair of the animal, left him no room to doubt but that it was the residence of a lion. The roaring of these creatures he frequently heard in the night, but he could not say that ever he had seen one in the woods. However, he had once the sight of two or three hundred elephants in a drove, coming down to the river to drink, which raised the dust like the smoke of a glass-house fire; and another time he saw a great number of those animals swim across the river not above a quarter of a mile a-head of his vessel.

Along the gold coast are an incredible number of deer, some as large as small cows, and others no bigger than cats; most of them are red, with a black list upon the back; and some of them beautifully

streaked with white. They are all esteemed delicate food, particularly a sort of about two feet long, the flesh of which is much admired. Among these animals is one of a red colour, of extraordinary beauty: these have little black horns, and are so small, that the legs of some of them, according to Mr. Boseman, are no thicker than the small part of a tobacco-pipe. They seem to be the same with the beautiful antelopes mentioned by Mr. Smith in his voyage to this country. "These pretty creatures," says he, seemed rather to vanish, than to run by us, among the bushes; yet they are often caught and shot by the natives. They are no larger than rabbits, and the Europeans frequently tip their feet with gold, to make tobacco stoppers of them, but they are so very tender that it is impossible to bring them alive to Europe."

Here are also plenty of guanas, which resemble little alligators. The natives say, that, when a man comes near them unawares, they will sometimes break his legs with their tail; which, however, appears almost impossible, the whole animal being seldom above a yard long. The negroes, and some white men, eat the guana as a great dainty; and affirm that it tastes as well as any rabbit. Of this creature we may probably find occasion to say something more when we come to treat of America.

In these parts of Africa, as in most hot sandy countries, there are a great many snakes and other venomous reptiles. Mr. Moore tells us that the natives are much afraid of the black snakes, which he himself has seen three yards long, and as large as the small of his leg. He shot a green snake about two yards long, but in the thickest

part not above three inches in circumference. This kind of snake, he was informed by the natives, is not at all venomous; but they have so many that are so, that they seldom go without a remedy about them, in case they should be bit by any of these poisonous animals.

There are great numbers and a prodigious variety of snakes in that part of Guinea called the Gold Coast, some of which are of an amazing size. Mr. Boseman observes, that the largest of those taken, while he was on this coast, was twenty feet long; he tells us, that he believes they are still larger within land. Most of the snakes are venomous, but one is so to an extraordinary degree. It is said that, though this is scarcely a yard long, it is two spans thick, and variegated with white, black, and yellow.

In some places there are said to be toads as large as a pewter plate; these are mortal enemies to the snakes, with which they have frequent engagements. There are likewise many centipedes, whose bite occasions a violent pain for several hours, but is not mortal. Spiders of a monstrous size are also found here, and are said to be very venomous.

At a town about a mile from Brucoe, Mr. Moore found a very large scorpion, being full twelve inches long. These creatures are reckoned very venomous; and were a person to be stung by so large a one as this, our author believes it would be immediate death. He has known several people stung by small scorpions, whose wound is so extremely painful, that for at least twelve hours the person stung cannot sleep; but about that time the pain abates, and soon after is quite over. It is remarkable, that notwithstanding the

violence of the pain, the swelling is inconsiderable.

Guinea hens and partridges are to be met with in vast numbers in these countries; and it is worthy of observation, that the latter have sometimes two large spurs on each leg; and this our author had reason to remark; having his hand one day torn with the spurs, as he snatched up a bird he had just shot, fearing lest it should escape.

There is likewise a variety of large and small birds, some of which are extremely beautiful, their plumage being finely variegated with the brightest colours; and the heads of some of them crowned with tufts of feathers. Particularly there are two sorts of crowned birds on the Gold Coast; one is about three feet high, shaped like a heron, and feeds on fish. It is black and white, and crowned with a bunch of feathers, that resembles the tassel of a coach-horse. The other is about the size of a parrot, and is green about the head and neck; the body is of a fine purple, and the wings and tail are scarlet, tipped with black.

Among the birds of Whidah, there is one remarkable for changing its colour whenever it moults; so that those which are black this year, will be blue or red the next; the following year they will be yellow, and afterwards green; but they never vary from these five colours; which are always very bright, and never mixed.

There are a sort of screech-owls, which in the night-time make a very dismal noise, and are taken by the superstitious natives for witches. If one of these birds happens to come

into a town in the night, the people are all alarmed, and fire at it as an enemy; and as they never had the good fortune to kill one of them, that Mr. Moore could learn, they still continue to be witches in the opinion of the poor natives.

Several remarkable insects are found near the river Gambia, and other parts of Negroland and Guinea. Mr. Moore tells us, that during the time of a very dreadful tornado, a sort of large flies with long wings came on board a sloop in the river, in such prodigious numbers, that flying into the flame of the candles, the table was soon covered with those that had burnt their wings; and others, which were not burnt, shed their wings as they walked along the table, and then were nothing but so many large maggots.

The musquetoes are the greatest plague to a person of any vermin on the river. They are even worse than the sand-flies, which are so little as hardly to be discerned. These, if any wind be stirring, are not able to bite; but the musquetoes regard neither wind nor any thing else, giving a person continual disturbance, especially in the night-time. They may be compared to our English gnats, but are much more troublesome; when they bite, the part itches very much, and cannot be scratched without great danger.

The buggabugs, as the natives call them, are a pernicious and destructive vermin wherever they get an entrance. Their mode of travelling is to make a hollow pipe or tube of dirt, much like an arch of a vault, under which they march without being seen. They are a sort of white ants, and are very expeditious at their work, for in twelve hours they will make their tube, and travel eight

or nine yards to get to a chest, box or barrel. Wherever they get, they make strange havock, especially in woollen clothes. In short, nothing comes amiss to them, for they feed as heartily upon wood as any thing else; and what is most remarkable, they eat the inside only of a chest or table, so that when they have entirely destroyed it by eating the very heart and substance of the wood, it appears to the eye to be still sound. They cannot bear the sun, which seems to kill them for a time; but after sun-set they are observed to recover their strength and vigor. People are obliged to watch these creatures very carefully, and to take measures to prevent their coming to their chests, which is done by putting them on stands with the leg well daubed with tar; and if the tar be not spread over anew at least once a week, it is ten to one but these insects pay them a visit.

In the rainy season, the frogs, of which there are vast numbers, are much larger than those in England, make as much noise in the night as a pack of hounds, and not unlike it at a considerable distance. This noise, together with that of the screech-owls, and the wild beasts in the woods and mountains, is extremely disagreeable.

Among the fish found on the gold coast, are the sea-devil, and the horned fish; the former is about twenty-five feet long, and proportionably thick; but it is most remarkable for the angles which project from its body, and are of a hard, horny substance. The head, which is large, is joined immediately to the body, without the smallest appearance of a neck, and is furnished with flat teeth. Nature has bestowed on this animal four eyes, two of which are near the gills, and

are large and round, but the two others on the forehead are of a smaller size. On each side the gullet are three horns, of an equal length and thickness; that on the right side, which stands between the other two, is about three feet in length, and an inch and a half in circumference, at its insertion, gradually terminating in a sharp point; but as it is yielding and flexible, it affords the animal only a feeble protection. The tail, which is long and taper, like a whip, is armed with a sharp point, which he frequently darts backward, and his back is covered with hard excrescences, two inches high. The flesh is tough and ill tasted, though much sought after by the negroes.

The horned fish, or sea bull, is about three feet long, exclusive of the tail, and armed with two horns in its forehead, which are bony, rough, pointed at the extremity, and about six inches in length. The eyes, which are large, are fringed with a kind of strong hard hair; and the head has some resemblance to that of a hog; but terminates in a kind of proboscis, which is the only passage, by which the animal receives its food, consisting of small fish and sea-weeds. The body is square, of an equal thickness at both extremities, being every-where about five feet in circumference. The skin is rough, strong, and filled with pointed knobs, but is not prickly, nor covered with shells, and is every-where spotted with different colours, as white, grey, and violet. On the back rise two excrescences, about three inches high, and running from the base of the horns almost to the tail; this is composed of two parts; the one fleshy, and covered with a continuation of the skin of the body, it being in fact a part of the vertebræ of the

back, but more flatted and pliant. The other is a thick fin, of a brown colour, streaked with parallel lines of white, and serves both for a kind of rudder, and for its defence.

Mr. Moore tells us, that one evening he supped upon oysters which grew upon trees; and this he makes appear to be literally true. On the banks of the river, it seems, where the water is salt, and near the sea, grow certain trees called mangroves, whose leaves, being long and heavy, weigh down the boughs into the water. To these leaves and branches the young oysters fasten in great quantities, where they grow till they are very large, and then they cannot be separated from the tree, but people cut off the boughs, on which the oysters hang somewhat resembling a rope of onions.

But of all the productions of these parts of Africa, perhaps none more deserves the attention of the curious than that we are now going to describe. Some of the natives having got a net, Mr. Moore went along with them to fish in a lake opposite to one of the factories, where they caught a great number of fish, and amongst the rest, one something like a gudgeon, but much larger. None of them cared to touch it, and persuaded our author not to come near it, telling him it would kill him. Some of them got long sticks, and touched the fish with them; but, finding the effect not so bad as they apprehended, they cut the sticks shorter and shorter, and even at six inches length the fish had no effect. At last they ventured to touch it with their fingers, but could not bear it the twentieth part of a minute. By this time Mr. Moore understood it was a torpedo, or cramp-fish, and had the curiosity to touch it with one of his fingers; but in a

moment his arm seemed dead quite up to his elbow, which came to itself again as soon as he withdrew his hand from the fish. He repeated the experiment several times, and found it have the same effect, even after the fish was dead. He then ordered it to be skinned, and found that the benumbing quality lay in the skin only, which it entirely lost when dried.

This is the plain matter of fact, as Mr. Moore has related it; but as it is one of the most curious subjects in all natural history, we presume it will not be disagreeable to enquire into the cause of such a wonderful effect. But let us first observe, that, whereas Mr. Moore represents the torpedo to be like a gudgeon, other authors speak of is as a flat fish, much of the figure of a thorn-back *; and whether the surprising quality of the fish lies in its skin, as our author supposes, let the reader judge, after he has considered the following hypotheses.

There are different ways of accounting for the effect produced by touching the torpedo. The first is that of the ancients, who contented themselves with ascribing a torporific faculty to the animal, without assigning any particular cause. The second supposes the effect to depend on an

* It seems as if different sorts of fishes were endued with a benumbing quality, there being no manner of likeness between the shape of a gudgeon and a thornback; and M. du Hamel, in his History of the Academy of Sciences, mentions a kind of torpedo which he compares to a conger-eel, a shape quite different from either of the former. M. Richer, from whom he has the account, affirms on his own knowledge, that they benumb the arm strongly when touched with a stick, and even sometimes occasion a vertigo.

infinite number of corpuscles issuing continually from the fish, but more copiously under some circumstances, than others. This is the opinion adopted by Redi, Perrault, and Lorenzini, who thus explain themselves: As the fire emits a quantity of corpuscles proper to heat us, so the torpedo emits a number of corpuscles fit to benumb the part they insinuate themselves into, whether it be by entering in too great abundance, or by their falling into tracts or passages disproportionate to their figures. The third account is that of Borelli, who looks upon this emission of corpuscles as imaginary, and says, that the fish, upon being touched, puts itself into a violent tremor or agitation, which occasions a painful numbness in the hand that touches it; but M. Reaumur could never observe any such trembling, notwithstanding he viewed the fish with great attention when ready to strike the numbness.

This gentleman observes, that the torpedo, like other flat fishes, is not absolutely flat, but its back, or rather all the upper part of its body, is a little convex. He always found, that when the fish did not, or would not, produce any numbness in the person who touched it, its back preserved its natural convexity; but whenever it disposed itself to resent a touch or thrust, it gradually diminished the convexity of its back parts, rendering them quite flat, and sometimes even concave. The very moment after this disposition, a numbness seizes the arm, the fingers that touched are obliged to withdraw, and all the flat and concave part of the body is again seen convex: and whereas it becomes flat so gradually as to be perceived, the return to its convexity is so swift, that it is absolutely imperceptible. It is from this sudden stroke,

according to M. Reaumur, that the numbness of the arm arises; for the person, when he begins to feel it, imagines that his fingers have been violently struck. The wonder is, how so soft a substance as that of the fish, can give so rude a blow; and indeed a single stroke of a soft body could never do it; but in this case there is an infinity of such strokes given in an instant. To understand this, we must consider the mechanism of the parts whereon it depends, which are two very singular muscles, described by several authors. They are shaped like a half-moon, and both together take up almost half the back of the fish, the one on the right side, the other on the left. Their origin is a little above the mouth, and they are separated from each other by the bronchia, into the last of which they are inserted. But their greatest singularity consists in their fibres, if we may give that name to a sort of smaller muscles as big as goose-quills, of an assemblage whereof the two great muscles are formed. These lesser muscles are hollow cylinders, their length nearly equal to the thickness of the fish, and ranged perpendicular to its upper and lower surfaces, accounting those surfaces as nearly parallel planes. These again are composed of twenty-five or thirty smaller cylinders placed over each other, and each full of a medullary substance.

Now we need only remember, that, when the torpedo is ready to strike its numbness, it slowly flattens the surface of its upper part; and the whole mechanism, whereon its force depends, will be apparent. By that gradual contraction it bends, as it were all its springs, renders it cylinders shorter, and at the same time augments their bases: and, in all probability too, the large fibres,

or little muscles, at that instant lose their cylindrical form, to fill the vacuities between them. The contraction being made, the longitudinal fibres are lengthened, the transverses ones are shortened, and the soft matter they enclose is driven upwards, which is promoted by an undulatory motion, apparent in the fibres when contracting. The parts of the torpedo being thus disposed, a finger that touches it instantly receives a stroke, or rather several successive strokes, from each of the cylinders to which it is applied. As the soft matter is distributed into various enclosures, it is more than probable that all the strokes are not given precisely at the same moment; nor indeed would they be so if there were no enclosures at all, but they serve to augment the number of the springs, and consequently the velocity and force of the action. These quick reiterated strokes shake the nerves, and suspend or change the course of the animal spirits; or they produce a motion in the fibres of the nerves, which clashes or disagrees with that they should have in order to move the arm, and occasions a painful sensation. Hence it is, that the torpedo does not convey its numbness to any considerable degree, except when touched on these great muscles; so that the fish may be safely taken by the tail, which is the part by which the fishermen catch it.

As the torpedo lives on other fishes, it is probable, that its benumbing faculty is of use to it in catching them; and this is the opinion of Pliny, Aristotle, and many other naturalists. M. Reaumur had no fish alive, to try whether the torpedo would kill them; but, having shut up a drake in water with the fish for some time, the drake was

taken out dead, doubtless from its too frequent contacts with the torpedo. The Abyssinians are said to use the torpedo for the cure of fevers, by tying the patient to a table, and applying the fish successively to all his members, which puts him to great pain, but effectually carries off the disease. Bellonius assures us, that the torpedo applied to the soles of the feet, has proved successful against fevers; and Dr. James says, it mitigates the violence of the pain in an inveterate head-ach.

## BUILDINGS.

UNDER this head the reader must not expect to find any thing very remarkable, in countries inhabited by people who have scarcely any knowledge of the arts and sciences, either liberal or mechanical. If there are any good structures in those parts of the world, they are owing to Europeans who have settled there for the sake of trade; and these buildings are chiefly forts and factories, wherein we may suppose regard is had more to strength and convenience than to magnificence or ornament.

The negro houses and towns, consist only of small conical cabins, with no other light than what enters by the door, which is so low, that they are forced to stoop in entering it; after which a man of ordinary stature cannot walk round, without striking his head against the walls. In these little huts, fathers, mothers, brothers, sisters, servants and slaves, lie together promiscuously. They are formed of a kind of wicker work, plastered over with earth, and covered with long

grass and palmetto leaves; but are sometimes joined together by walls; by which means, those of superior rank have distinct and separate apartments, for the different parts of their families, and an additional hut for the reception of strangers. In some parts a number of these huts built promiscuously together form towns, and in other places, their towns are built of a circular form, with spiral streets: hence in a village, not half a mile in diameter, it is said, that a person is frequently obliged to walk two or three miles to visit an acquaintance, when, by a short cross street, the distance might be reduced to a hundred paces.

Some nations of the Mandingoes, however, build in a more commodious manner, the walls, being made of a binding clay, that seems smooth and hard like porcelain; their structures are thatched with straw, which projects beyond the building, to a little wall breast high, forming a small gallery round the hut, in which they are sheltered from the rays of the sun. Mr. Adamson mentions a village burnt down before his arrival, where the walls that withstood the violence of the flames were partly of a beautiful red, and in a manner vitrified by the intense heat; but, at a distance, the whole seemed covered with a bright enamel, and resembled the finest china.

The Foulah towns indeed are built in a regular method, the houses being ranged in strait lines, and at proper distances from each other, to prevent the spreading of fire; and thus they have good streets and passages, a thing which the Mandingoes do not regard. Their towns are surrounded with palisades, within which they have plantations of cotton, and on the outside of this fence, they sow their Indian corn. They have also a

place near each town for their cattle, in the middle of which is built a sort of stage about eight feet high from the ground, and eight or ten feet wide; which is ascended by a ladder, and has a roof of thatch over it, but the sides are all open. Here, four or five men sit up all night, with their arms, to guard the cattle from lions and other ravenous animals. Numbers of stakes are driven into the ground in rings round the stage, and every evening the cattle are brought out of the meadows, and tied each to a stake, with a stong rope, made of the bark of trees. They are so tame, and accustomed to this confinement, that they come to it without any difficulty; and, being milked in the evening, and again in the morning, they are turned loose into their pastures, where they are watched by herdsmen, to prevent their getting into the corn, or running into the woods. The Foulahs understand very well the breeding and managing of cattle, and are almost the only people high up the river of whom beasts can be purchased.

## CUSTOMS, MANNERS, RELIGION, AND GOVERNMENT, OF THE INHABITANTS OF NEGROLAND AND GUINEA.

CHILDREN of both sexes in Negroland and Guinea wear no clothes till they are thirteen or fourteen years of age, when those of distinction wear a cotton cloth from the waist downwards, while the poorer sort remain in their primitive nakedness. Women of middle rank wear girdles of rushes, or palm leaves neatly interwoven and hanging down to their knees. They likewise have

copper, brass, or iron bracelets round their wrists, and large rings upon their legs, to which they hang silver bells. The most common dress is the tomy, which is made of woollen cloth, manufactured by themselves. This the females tie round their waists, letting it fall to the knee; but the men, fixing it before, bring it between their legs, and fasten it to a girdle behind. Despicable as this dress must appear, those who wear it are not without vanity, taking great pleasure in adorning their woolly locks with little plates of gold, and other ornaments. The women endeavour to attract the regard of the men, by drawing a line of white, yellow, or red paint across their forehead, with circles of the same round their arms, legs, and waist. The men wear much the same ornaments, which differ only in the size of the bracelets and rings on their arms, legs, fingers and toes. The poorest negro is seldom without some of these, and their number is increased in proportion to the wealth or vanity of the wearer.

The furniture of the common people consists only of a few earthen vessels, wooden bowls, dishes, plates, calabashes, and similar utensils; their mats supply the place of chairs, tables, and beds; except one bed for the master of the family, which consists of a kind of hurdle laid upon cross pieces of wood, supported by wooden forks, a foot above the ground; upon this they throw a mat, which serves them for a matrass, and frequently also for sheets and covering.

The negroes of the interior countries are said to be so libidinous as to abridge their lives, and even to emaciate themselves before they reach their prime. This is said to be their greatest

vice; and indeed nothing can be more prejudicial to society. In every other respect, they are said to be temperate, gentle, and sociable, in a far greater degree, than the negroes on the coast. They have an aversion to the shedding of human blood, and very seldom make war but in their own defence. They are united by friendship, and ready to assist and relieve each other. Hence, if a friend be under misfortunes, they will share their clothes, their provisions, and all they have with him; and, should it be their case to be distressed, they would meet with the same treatment in return.

Polygamy is allowed in all the negro nations; but, however numerous the wives may be, the husband chiefly attaches himself to one.

In the interior parts of Sierra Leona, every child has a name given on the tenth day after his birth, when the father, taking the infant, is attended by his domestics armed with bows and arrows, and makes a tour round the town, singing a kind of triumphal song, accompanied by instrumental music; while all the people they meet join their voices. Afterwards, a person takes the infant, and laying him upon a shield, placed in the midst of the assembly, puts a bow and arrow into his hands, and then pronounces a long discourse to the spectators; after which he addresses himself to the infant, wishing him prosperity, and that he may resemble his father in his industry, faithfulness and hospitality; that he may be able to build his own house, and to conduct his own affairs; have no inclination for the wives of his neighbours, but be affectionate to his own; and be neither a drunkard, a glutton, nor a spendthrift. Then giving the child a name, he restores him to

the arms of his mother or nurse; and the assembly disperses, except a few select friends, who have an entertainment provided for them, and spend the day in mirth and festivity. If the child be a female, it is carried by the mother or nurse to the midst of the town, where the concourse is greatest and there laid upon a mat, with a stick in her hand. A female orator pronounces a speech, and expresses a fervent wish that the child may inherit the accomplishments of the mother, and, like her, be possessed of every female virtue, as chastity, obedience to her husband, and affection to her children.

The different nations of Sierra Leona acknowledge one Supreme Being, the creator of all things, whom they call Canno, and to whom they attribute omnipresence, infinite power and knowledge. But they believe that the dead are converted into spirits, whom they call januanins or protectors, who are employed in guarding their former friends; and their veneration for them is so extreme, that every village has a sacred grove, set apart for their worship, to which great quantities of provisions are brought in the proper seasons; and those persons, labouring under any affliction, implore the aid of the januanins; but women, children, and slaves, are not allowed to enter these sacred retreats; for a trespass of this nature they suppose would be instantly punished in the most exemplary manner.

The Quojans, one of these nations, have no less faith in magicians and sorcerers, who they imagine suck human blood. They likewise believe there are other enchanters, whom they stile *billees*, that have a power over the seasons, and can either promote, or entirely stop the growth of rice. Hence they never venture to pass through

a word without company, for fear of meeting with a billee, busied in culling plants and herbs.

These imaginary invisible agents, particularly the januanins, are artfully made the moving springs, by which the affairs of government are conducted; for if a woman be accused of adultery, and there appears no other proof, but the allegation of her husband, she is acquitted upon beseeching a spirit named Belli Pocri, to confound her, if she varies from the truth; but if she be afterwards convicted, her husband must bring her in the night to a public place, where the council sits; and there, after invoking the januanin, her eyes are covered, to prevent her seeing those beings, who are to carry her out of the world; and she is left for a while in the belief, that this will certainly be her fate. When she has suffered the most dreadful apprehensions, and the most painful suspense, the eldest in council, begins a solemn discourse on the shamefulness of a disorderly life, threatening her, if she persists in her guilt, with the most cruel punishment. Suddenly a confused murmur, that passes for the voice of the januanin, is heard; declaring, that though her crime merits the most rigorous chastisement, she will be pardoned, on account of its being her first transgression, enjoining certain mortifications, and recommending the most austere chastity. But if she fall a second time under the same censure, the chief priest, with one of his ministers, and proper officers, go early to her house, making a prodigious noise, with a kind of rattles, and seizing her, bring her to the court, where she is ordered to walk three times round the market place, attended by the same noise and instruments. Then, without hearing her defence, or promises of reforma-

tion, they conduct her to a wood, sacred to the januanin, from which time she is never more heard of, nor are the people ever permitted to mention her name, they being so credulous as to believe, that the januanins have carried her out of the world.

The different kingdoms upon the banks of the river Gambia are inhabited by several races of people, Mandingoes, Jaloffs, Foulahs, Feloops, and Portuguese; which last, having settled there about the year 1420, have cohabited with the Mandingoes, till they are almost as black as they are; but they still retain a sort of bastard Portaguese language, and nothing vexes them more than to call them negroes, that being a term which they use only for slaves. The Mandingoes are the most numerous of these nations.

On the north side of the Gambia lies the country of the Jaloffs, which is very large, extending even to the river Senegal. These people are much blacker and handsomer than the Mandingoes, not having the broad noses and thick lips, peculiar to that people. In short, none of the countries about this river can equal the Jaloffs for blackness of skin and regularity of features.

In every country and kingdom, on each side of the river there are some Foulahs, a people of a tawny colour, much like the Arabs, who live in hordes or clans, build towns, and yet are independent of the kings in whose territories they live; for if they are ill-treated in one nation, they break up their town, and remove to another. They have chiefs of their own, who rule with great moderation, and this form of government goes on easily, the people are of a good and quiet disposition, and so well instructed in what is right and equitable,

that a man who does ill, is the abomination of all, and none will support him against the chiefs, or endeavour to screen him from justice. The natives here using very little land, the kings are willing enough to give the Foulahs leave to cultivate as much as they please; and accordingly, though strangers, they are the greatest planters in the country. They are very industrious and frugal, and raise much more corn and cotton than they consume, which they sell at easy rates, and are very hospitable and kind to all; so that the natives reckon it a blessing to have a Foulah town in the neighbourhood. As their humanity extends to all, they are doubly kind to those of their own race; insomuch that, if they know of one of them being made a slave, all the Foulahs will join to redeem him. Having plenty of food, they not only support the old, the blind, and the lame amongst themselves, but, as far as their ability goes, supply the wants of the Mandingoes, great numbers of whom they have maintained in times of famine. They are very seldom angry, and are hardly ever heard to abuse one another: though this mildness does not proceed from want of courage; for they are as brave a people as any in Africa, and handle their arms with great dexterity. Very few of them will drink brandy, or any thing stronger than water and sugar.

On the south of the Gambia, and but a little way inland, are the people called Feloops, who are in a manner wild. They border close to the Mandingoes, and are inveterate enemies to each other. Their country is of a vast extent; but they are under the government of no particular chief, and yet such an union subsists among them, that the Mandingoes with all their forces, though

very numerous, cannot reduce them to subjection. They have the character of never forgiving, or at least never suffering an injury to go unrevenged; but then, to make amends, the least good office done them is always repaid by a grateful acknowledgment.

As to the languages used about the river Gambia, the most general is the Mandingo, by which name the country, as well as the people, is called. If a traveller can speak that language, he may proceed from the river's mouth up to the country of the Joncoes, or merchants, so called from their buying every year a vast number of slaves, and bringing them down to the lower parts of the river, to sell to the white people; which country Mr. Moore believes to be no less than six weeks journey from James' Fort, which belongs to the African Company, and is situated on an island in the Gambia, about ten leagues from the mouth of the river.

The next language mostly used in this country is the Creole Portuguese, which is so corrupted, as to be scarcely understood at Lisbon; but it is sooner learnt by Englishmen than any other language in those parts, and is always spoken by the linguists who serve both the separate traders and the company. Arabic is spoken by the Foulahs, and by most of the Mahometans on the river; though they have also a vulgar tongue, the Arabic being to them what Latin is to us in Europe. The Mandingoes have also a cant language, which is spoken only by the men, and is seldom made use of in any discourse but what relates to a dreadful bugbear, called mumbo-jumbo, by which the women are kept in awe. This stratagem being perhaps peculiar to these parts of Africa, an account

of it may probably be agreeable to our readers.

The mumbo-jumbo, is a kind of idol dressed in a long coat made of the bark of trees, with a tuft of fine straw on the top of it; and when the person wears it, it is eight or nine feet high. This is a thing invented by the men to keep their wives in subjection, who are so ignorant (or at least they are obliged to pretend to be so) as to take it for a wild man; and indeed a stranger would hardly suppose it to be a human creature, by reason of the dismal noise it makes, which few of the natives can imitate. When the men have any dispute with their women, this mumbo-jumbo is sent for to decide it, which is always in favour of the men. His authority is such, that he can order those about him to do what he pleases, either to fight, kill, or make prisoners; but it is to be observed, that no one is allowed to come armed into his presence. When the women hear him coming, they run away and hide themselves; but sometimes he sends for them all to come and sit down, and orders them to sing or dance, just as he pleases; and if any refuse to come, they are brought by force and whipped. This bugbear never comes abroad but in the night time, which makes it have the better effect. In the day-time the coat is fixed upon a pole near the town it belongs to, there being few towns of note without one—When a man enters into this society, he swears in the most solemn manner never to divulge the secret to any woman, or to any person who is not a member of it; and none are admitted under sixteen years of age. The people swear by the mumbo-jumbo, and the oath taken by it is very strictly observed.

About the year 1727, the king of Jagra, having a very inquisitive woman to his wife, was so weak as to diclose to her the whole secret of this mystery, and she revealed it to some other women of her acquaintance. This at last came to the ears of some who were no friends to the king, and having consulted upon the matter, and fearing they should not be able to govern their wives if the affair became public, they put a man into the coat, went to the king's town, sent for him out, and taxed him with it; which he not denying, they sent for his wife, and killed them both upon the spot. So the poor man died for obliging his wife, and the woman perished for her curiosity.

We shall now give a concise view of the customs and manners of the inhabitants of Guinea, the whole coast of which is much frequented by Europeans, and is usually divided into the slave, the gold, the ivory, and grain coasts. Though this whole country is very unhealthful for European constitutions, the natives have but few distempers. The small pox is the most fatal to them of any, sometimes sweeping them away like a plague, as is the case in other warm climates. Another epidemical distemper is that of worms, which are found between the skin and the flesh in all parts of their bodies, but chiefly in the legs, and give the patient very great torment till they are extracted. The manner in which they are drawn out is this: when the worm has broke through the tumour it occasions, they fasten it to a stick, round which they wind a small part of it every day, till the whole be extracted, and the patient freed from his pain. If the worm happen to break, the torture is increased, the remaining

part either rotting in the body, or breaking out at some other place. Some of these worms are said to be an ell long, and others much longer.

The negroes of Whidah are, in general, tall, well-made, straight and robust. Their complexion is black, but not of such a glossy jet as that of the people on the Gold Coast. The people are, in general, better dressed than most of the other negroes on the coast. The dress of the king, who is esteemed the most powerful monarch in Guinea, and that of the great officers, is very different from that of the common people; it consists of a piece of white linen, about three ells long, wrapped round their waist, in a decent and becoming manner; and hangs down to the feet, like a petticoat. Over this they wear a silk garment of the same size and form, and upon this last have a richer piece of silk, six or seven ells in length, which they tye by the two corners, and, making a great bunch on the right hip, the rest hangs down to the ground, so as to form a train; but none are allowed to wear red, except the royal family. Some authors say, that the king and the great officers wear necklaces, with gold chains and bracelets of pearl, gold, and coral. The common people wear nothing on their heads to shelter themselves from the rain, or the heat of the sun; but great personages cover their heads with an European hat and feather. As to the common people they generally wear only a cotton-cloth, or a few herbs, fastened round their waist; but the women of the same rank, have five or six cloths, the longest of which covers half the leg; and the others, which are over it, are each shorter than the other.

The king's wives, and those of the great men, are like the rest, naked from the girdle upwards, and from the waist downwards have two or three coverings of cotton and silk, the longest of which reaches to their ancles, and the others are a little shorter. These are all very large, and form a roll about the hips, that makes the women appear as if they wore hoop-petticoats. They are adorned with necklaces; from the wrist to the elbow, they have strings of pearl, gold, and coral; and on their heads wear a cap of platted and coloured straw, which is very light, and has some resemblance to the papal tiara.

Both the nobility, and all the rich negroes, when they go abroad, are carried in palanquins, which are here a kind of covered hammocks, and are an excellent defence against the heat of the climate, which is so great, that an European cannot walk in the middle of the day, without extraordinary fatigue.

The inhabitants of Whidah exceed all the negroes in good and bad qualities. They treat Europeans with extraordinary civility, courtesy, and respect, and have an obliging manner of addressing each other. According to Bosman, in their servility, and several other respects, they perfectly resemble the Chinese. Thus, when any one visits, or accidentally meets his superior, he instantly drops upon his knees, kisses the earth three times, claps his hands, and wishes him a good day or night, which the other returns in the posture in which he then happens to be, by gently clapping his hands, and wishing him the same. The like respect is shown to fathers by their children, to husbands by their wives, and to an elder brother by the younger. Every thing is deliver-

ed to, or received from, a superior on the knee; and the clapping of the hands together, is esteemed a mark of most profound respect. When persons of equal rank meet, they each drop down, clap their hands, and mutually salute each other, while the same ceremonies are observed and imitated by their several attendants; whence above a hundred persons may sometimes be seen on their knees together. If a superior sneeze, all round him fall on their knees, clap their hands, and wish him happiness. Though idleness is the favourite vice of the Africans, people of both sexes are here so laborious and diligent, that they never desist till they have finished their undertaking; carrying the same perseverance into every action of their lives. Like the Chinese, they are so extremely addicted to gaming, that after having lost their whole substance, they play for their wives and children; and when they have lost them, stake their liberty, and thus become slaves to their own countrymen. It is indeed surprizing, how a nation confined to so small a spot of ground, should differ so widely in their manners, from the surrounding kingdoms, with which they keep up a constant intercourse. One would imagine that they had a soil, a climate, and a nature peculiar to themselves, and different from that of the people who are only a few miles distant.

The crown of Whidah is hereditary, unless the great men have some extraordinary reasons for excluding the eldest son, and placing the crown on the head of one of his brothers. But the eldest son must have been born after the king's accession, for those he had before his ascending the throne, are only considered as private persons. They have here a very extraordinary custom, which, it is

said, is never violated. The successor is no sooner born than he is carried by the great men into the province of Zangua, on the frontiers of the kingdom, where he is educated as a private person, without knowing his birth; and none of the great men are allowed to visit or receive visits from him. Those charged with his maintenance, though they know his birth, are prohibited under pain of death, from giving him the least hint of his quality, or treating him otherwise than as their own child. By this means the prince, knowing nothing of state affairs, is obliged for a long time to abandon the government to the management of his nobles, and generally passes several months before he is crowned; but this is no sooner done, than he instantly becomes a kind of deity, who is never approached but with the most profound reverence. The nobles of the first rank, are sometimes permitted to eat in his presence, but never with him; for this honour is reserved for his women alone, who are said to amount to three or four thousand. The ignorance and meanness in which he is bred, generally give him a high relish for pleasure; and he usually lives in a most slothful, luxurious, and debauched effeminacy among his women, without enjoying the conversation of men, or those exercises that are adapted to invigorate the body and illumine the mind.

But notwithstanding the king's being treated with the utmost servility by his own subjects, when the captains of ships wait upon him, he receives them in the hall of audience, causes easy chairs to be brought them, and sometimes drinks and smokes with them. Trade has introduced into Whidah many of the elegancies and luxuries of Europe, and all the nobles and rich merchants,

endeavour to furnish their houses, in the same manner. The palace is adorned with magnificent beds, canopies, easy chairs, looking-glasses, and every thing fit to adorn a house in that climate. The king and nobility are furnished with cooks, instructed by those of France; so that when an entertainment is given to an European, he finds the tables of the negro lords served with as many delicacies as those of Europe. They are covered with fine linen, and vessels of silver and porcelain. Wine is brought them from France, Spain, Madeira, and the Canaries; they are also supplied with brandy, sweetmeats, chocolate, tea, and coffee. This elegance, however, is confined to the great and wealthy, for the lower classes still preserve their ancient manners.

The most sensible part of the people believe in one spiritual Being, who rewards virtue and punishes vice; who causes the sun to shine, the heavens to thunder, the sky to be covered with lightning, and the clouds to pour down rain. They maintain that his residence is in the heavens, whence, with infinite goodness, he governs the world; but suppose that it would be presumption in them to address their petitions to him, and therefore they have four principal objects of worship, viz. the serpent, the trees, the sea, and Agoya, the god of councils.

The people thus account for their worshipping the serpent: the inhabitants of Whidah being ready to give battle to the king of Ardrah, a great serpent came from the enemy's army to theirs; and appearing to fawn upon every body, the chief marabut, or high priest, ventured to take it in his hands, and, holding it on high, showed it to the whole army; who, being amazed at the prodigy,

prostrated themselves before the harmless animal, and then attacked the enemy with such courage and resolution, that they gained a complete victory, which the credulous soldiers attributing to the snake, they took it with them, built it a house, brought it provisions, and, in a short time, the new god eclipsed all the others. As its worship increased in proportion to the imaginary favours they received from it, they erected a more sumptuous house, with many courts and spacious lodgings; it had an high priest, and an order of marabuts to serve it. They dedicated to it the most beautiful women, and that it might never want servants, they annually chose new ones. This serpent is still worshipped in his house or temple, upon various occasions; but the offerings and sacrifices made to him, are far from being confined to bulls, rams, loaves of bread, and fruit; the high priest frequently prescribing a considerable quantity of valuable merchandize, as gold rings, brandy, gunpowder, &c. Very sensible negroes in other respects, gravely assert, that the serpent they now worship is the same to which they owe the victory which freed them from the oppression of the king of Ardrah; it has however multiplied extremely, and its posterity do no injury, but permit the people to put them into their bosoms, and into their beds.

The inhabitants of this country esteem themselves happy when one of these snakes honours their house with its presence; and not only make it a bed, but if it be a female with young, make her a little house, to which she retires to bring them forth; and when she or her young want food, bring it them. If any one should venture to kill one of those reptiles, he would be put to a cruel death. However, neither the black snakes, nor

the swine, pay any regard to their divinity, but kill and eat them; though it always costs the life of those animals, when they are caught in the fact; and nothing can save a hog from being instantly killed. In this case the people have no respect to those to whom they belong; for though they are the king's, they are killed on the spot, and their flesh is the property of him who slaughters them.

The inhabitants of Ardrah are in many respects different from those of Whidah. The dress of the courtiers consists of two silk or brocade petticoats, with a broad scarf drawn across the breast and shoulders. The people of inferior rank wear five or six petticoats, one over another, made of cotton cloth, manufactured in the country; and those who can afford it, have them adorned with gold studs. Many persons of distinction wear over their shoulders, a short satin mantle, as a morning dress; but in visits this is laid aside, and the natural black skin preferred, as more beautiful and becoming. The high priest has cotton drawers, and a long piece of white cotton wrapped round him, plaited in a pretty taste. On his head, he wears either a cap, or an European hat; and on his feet, slippers or sandals of red leather; by his side, he has a large cutlass, with a gilt handle, and carries a cane in his hand. He alone stands covered in the king's presence; but the nobility pull off their caps and slippers before they enter the presence-chamber.

The women are extremely fond of dress; they appear clothed with the finest satins, chintz, and brocades, adorned with a profusion of gold; the men never thinking them genteelly dressed, without their being loaded with a superfluous quantity of silk.

The usual food of the inhabitants is beef, mutton, pork, goats, and dogs flesh, with rice, fruit, roots, and many kinds of vegetables; and they are so far from worshipping the tame and gentle serpents of the adjacent kingdom of Whidah, that they search for them, in order to kill and eat them.

All the Pagan negroes have what they term their fetiches, but in different countries these kind of idols have different names, and are formed of different substances. The people of this country give that name to some ornament worn on the head, or to any other substance dedicated to an invisible spirit. Besides each feticheer, or priest, has here a peculiar fetiche, prepared in a different manner. This is, for the most part, a large wooden pipe, filled with earth, oil, blood, the bones of dead men and beasts, hair, feathers, &c. By these mixtures, formed to affect the minds of the superstitious, the priest and people probably suppose, that there is formed a kind of necromantic charm, by which some spirit may be prevailed on to perform what is desired. Thus, if a negro on the Gold Coast takes an oath before this fetiche, he first enquires of the priest what is its name, each having a peculiar one; then calling the fetiche by it, he repeats what he is to confirm by oath, desiring that he may be punished with death, if he swears falsely; then walking round the pipe, he stops at the same place, and repeats the oath a second time as before, and after this a third time. The feticheer then takes some of the ingredients out of the pipe, with which he touches the person's head, arms, belly, and legs, and, holding it above his head, turns it three times round. He then cuts off a bit of the nail of one finger on each hand, and of one toe on each foot, and some of the hair of the head;

all which he puts into the pipe, and thus the ceremony is concluded.

The negroes of the eastern part of the Ivory Coast are called Quaques; and are rather above the common stature, clean-limbed, and well proportioned; but though, at the first glance, their features appear very disagreeable, they are represented as the most rational and civilized people in all Guinea. They are said to consider long nails as a great ornament; to dress their hair in tresses, which they keep separate, by a paste of palm oil, and a kind of red earth; and daily to anoint their bodies with the same kind of paste. They wear round their ancles large iron rings, and are pleased with their jingling sound, and that of the bells fastened to them, in the multitude of which their dignity and grandeur consists. The common people have no other clothes but a piece of cloth fastened round their waist; the wealthy, however, have a sort of cloke with long sleeves which hang down below their knees.

According to Villault, their women, setting aside their black complexion, would, in Europe, pass for beauties, from the brilliancy of their eyes, the regularity of their features, and their tall, slender, genteel shape. Some of them adorn their hair with little gold plates, in the making of which their artists endeavour to excel. These plates are, in general, thin, small, and of little value; but some women wear such a number of them as make them amount to a considerable sum. Those unable to adorn their heads with such splendor, divide their woolly hair into a multitude of small tresses, which they adorn with ivory, pieces of oyster-shells, and other shining baubles; which are also

worn by those who have plates of gold. The women wear only a cloth hanging down before.

These negroes drink a kind of beer called pito, and palm-wine, mixed with water; and drunkenness is considered by them as a crime of so odious a nature, that the laws have prohibited it under the severest penalties; it being a maxim among them, that to destroy one's reason, is to level man with the brute; to prejudice society, by robbing it of its useful members; and to destroy the effects of all laws and government, since a man, void of reason, is ignorant of the propriety of action, and cannot be influenced by law. Their mode of salutation is laying hold of the fingers, and making them crack.

## ARTS, MANUFACTURES, AND COMMERCE.

IT is said to be here a constant rule, for the son to follow the profession of the father; but this is so far from improving them in the knowledge of the mechanic arts, that they are still very indifferent workmen. According to Mr. Atkins, a common lock is such a curiosity, as to draw a great number of people together to see it; a watch still increases their admiration; and writing, which they term making paper speak, is quite miraculous. If they are sent with a note, and told the contents before they go, they frequently make the experiment, whether the Europeans deceive them, in pretending to interpret the thoughts of an absent person, by those crooked characters: this they do by asking the contents, when their surprise is inconceivable, on hearing the note read. Of this they can

form no idea, and therefore are ready to believe that white men have some familiar spirit that assists them on these occasions.

The negroes of the Grain Coast are esteemed excellent mechanics, particularly the smiths, who understand the art of tempering steel and other metals, making arms, and other instruments of steel. They have also workmen who build canoes of different sizes, upon certain regular principles. They have likewise made several improvements in husbandry, particularly with respect to the cultivation of rice, millet, and Guinea pepper.

The Jaloffs make the finest sort of cotton-cloth, and that in large quantities. Their pieces are generally twenty-seven yards long, but never above nine inches wide; so that they cut them to what length they please, and sew them together very neatly, to make them serve the purpose of broader cloths. After the cotton is cleansed from the seed, they spin it by hand, with the spindle and distaff; and weave it with a shuttle and loom of very coarse workmanship. For wearing, they make them up into pairs, one about three yards long, and a yard and a half wide, which are to cover their shoulders and body; the other about the same width, only two yards long, to cover them from the waist downwards. Such a pair forms complete clothing either for a man or woman; but the manner of wearing them is somewhat different. Our author says he has seen a pair of cloths so fine, and dyed so bright, as to be worth thirty shillings sterling. Some of their colours are very lively, which are either blue or yellow, the former dyed with indigo, the latter with barks of trees.

The negroes in general have few manual arts among them, which yet seems more owing to idleness, than want of capacity. Those of Guinea are chiefly employed in matting of chairs, making wooden or earthen cups, copper ointment boxes, and arm-rings of gold, silver, or ivory, with some other toys. Though their tools are very indifferent, they can make sabres and all sorts of arms (guns only excepted) as well as whatever is required for their agriculture or domestic uses. Their chief implements are a kind of hard stone instead of an anvil, a pair of tongs, and a small pair of bellows, with three or four pipes, which blow very strong, and are an invention of their own. But their most curious manufactures are the gold and silver hatbands which they make for the Dutch, the thread and contexture whereof are so fine, that they could not be easily imitated, even by European artists.

The chief trade of Negroland and Guinea consists in gold, slaves, elephants teeth, and beeswax. Of the gold of these countries we have already spoken; and the same merchants that bring it from the inland parts to the factories on the river Gambia, bring likewise elephants' teeth, and slaves, who are generally prisoners taken in war. The merchants buy them of the princes who take them; and their way of bringing them is to tie them by the neck with leather thongs, about a yard distant from one another, thirty or forty in a string, each of them carrying upon his head a bundle of corn or an elephant's tooth. In their way from the mountains, they travel through very great woods, where, for some days they can get no water but what they carry with them in bags made of skins. They use asses as well as

slaves in carrying their goods, but no camels nor horses.

Besides the slaves brought down by the merchants, there are a great many purchased all along the river, perhaps a thousand one year with another. These are either taken in war, as the former, or people condemned for crimes, or else stolen, which is very frequent; but the African Company's servants buy none of the last, if they suspect them to be such, without sending for the alcade (a sort of judge) or the chief men of the place, and consulting with them about the matter. Since the slave-trade has been carried on, the natives have changed all their punishments into slavery; and there being an advantage arising from such condemnations, they often strain hard for crimes in order to have the benefit of selling the criminal. Not only murder, theft, and adultery, but every trifling fault is punished in this manner. Mr. Moore tells us, that a man was brought to him to be sold for having stolen a tobacco-pipe; but he sent for the alcade, and with much difficulty persuaded the injured party to accept of a composition, and give the man his liberty.—In Cantore, a man seeing a tyger eating a deer, which he had killed and hung up near his house, fired at the tyger, and the bullet killed a man; upon which the king not only condemned him to be sold, but also his mother, three brothers, and three sisters. They were brought to Mr. Moore for sale, who was so much affected at the sight, that he would not buy them; but they were sent farther down the river, and sold to some separate traders; and the king had the goods for which they were exchanged.

Several of the natives have slaves born in their

families, who sometimes grow very numerous; insomuch that all the inhabitants of a village near Brucoe, reckoned about two hundred people, are all the wives, slaves, or children of one man. In some parts of Africa they sell the slaves born in the family; but about the river Gambia they look upon such a practice with abhorrence. Mr. Moore never heard of more than one person that ever sold a family-slave, except for such crimes as they would have been sold for if they had been free. If one family-slave commit a crime, the master cannot sell him without the joint consent of the rest; for if he does they will all run away, and meet with protection in the next kingdom.

It is said, that not only criminals and prisoners of war are sold for slaves, but debtors also; and sometimes the debtor's whole family and all his relations are included in the cruel sentence. It is likewise asserted that men sell even their wives and children when they have offended them, whilst others lessen their families under an apprehension they shall not be able to maintain them; and if a famine or great scarcity happen, they will sell themselves to one another for bread. One of the petty princes on the coast of Guinea, is reported to have sold, on some small disgust, several of his wives to a captain of a ship at once; and in times of peace, nothing is more common than for the negroes of one nation to steal those of another, and sell them to the Europeans. There have been instances also of children selling their fathers and mothers, when they have been weary of them, and wanted to enjoy their possessions; which has occasioned a law in some countries, that children shall not inherit the goods or estates of their parents. Such are the various ways by

which the unhappy negroes are frequently reduced from flourishing circumstances to a state of slavery, and brought down to the coast to be sold to the merchants of Europe.

Say when, blest guardian of Britannia's isle,
Thy soothing voice shall injured negroes hear?
Freed from captivity forget their toil,
Repress the sigh, and wipe the gushing tear?

When shall the unenlightened savage prove
The matchless pleasures of a peaceful life;
Devote his future thoughts to social love,
And break, with pious zeal, his murderous knife?

Then shall the warrior's hand the sickle wield,
Or prop the fruitful branch, or break the clod;
While his fond consort follows to the field,
And lifts her eyes, with gratitude, to God!

Another great article of trade in Negroland and Guinea is ivory, or elephants' teeth, which are got either by killing those animals, or picked up in the woods. It is a trade, followed by all nations about the Gambia, for whoever kills an elephant has the liberty of selling him and his teeth; but those traded for in that river are generally brought from the inland parts of the country, and many of them by the merchants. As to those found in the woods, whether they belong to elephants that had been dead many years, or whether those animals shed their teeth, as some have conjectured, Mr. Moore was not able to learn: but this is certain, that they find teeth without any skull or bones fixed to them, which makes the latter conjecture not improbable. The largest tooth our author ever saw, weighed a hundred and thirty pounds; and the larger they are, it seems the more valuable by the pound, for one tooth that weighs a hundred pounds, is worth more than three that weigh a hundred and fort-

Many of the teeth are broken-pointed, which lessens their value considerably; and some are white, and others yellow, but this makes no difference in the price.—One part of Guinea is called the Ivory Coast from the great numbers of teeth found there, or brought thither from the inland parts to be sold to European merchants and factors.

The next branch of the trade on the Gambia is bees-wax, which is capable of great improvement. The Mandingoes make bee-hives of straw, of the same shape as ours in England; but they have a board at the bottom, with a hole in it for the bees to go in and out, and so are not placed on stands, but hung upon the boughs of trees. When they take the combs they smother the bees; and having squeezed out the honey, (of which they make a sort of wine) they boil up the wax with water, and press it through hair-cloths into holes made in the ground for that purpose. They make cakes of it from twenty to a hundred and twenty pounds weight, which the purchasers try by boring through them, those which are clearest from dirt being accounted the best.

END OF THE SEVENTH VOLUME.

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